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THE
HEALTH OF BOLTON
1966

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH

COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDED

31st December, 1966

A. I. ROSS, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH

HEALTH DEPARTMENT, CIVIC CENTRE, BOLTON

Telephone No. 22311

HEALTH COMMITTEE, 1956-67

The Mayor (Alderman Mrs. N. Vickers, J.P.)
Chairman: Councillor Mrs. D. Berry
Vice-Chairman: Alderman Dr. F. T. F. Keogh, J.P.

Alderman Mrs. E. A. Ashmore, J.P.
Alderman Dr. J. R. Monks, G.M., J.P.
Alderman J. Vickers, O.B.E., J.P.
Alderman W. Walsh
Councillor Mrs. P. J. M. Bellamy
Councillor H. Bleackley
Councillor Mrs. F. Bockock
Councillor D. S. Clarke
Councillor J. A. Foster
Councillor W. Glynn
Councillor J. G. Holland
Councillor R. Johnson
Councillor N. L. Kenyon
Councillor J. H. Laycock
Councillor Mrs. F. Mitchell
Councillor J. Rigby
Councillor P. J. Wood
Councillor T. P. Yates

Co-opted Members:

Dr. B. Thornley
Mr. H. T. Somerville
Mr. A. G. W. Smith

Sub-Committees

Personal Services
Insanitary Areas and Premises
Baths and Ambulance
Appointment of Staff
Smoke Control Areas - Financial Assistance
Slum Clearance
Appointment of School Medical and Dental Staff
Appeals against charges
Use of Former Deane C. of E. Primary School Premises

INTRODUCTION

During 1966, many important developments took place in the health services of Bolton - the new Firwood Training Centre for children was opened, the District Nursing Service changed completely to the use of dressings prepared at the Adult Training Centre, Cotton Street and sterilised at the Bolton Royal Infirmary, it was possible to take cervical smears from many more women and the report of the Geriatric Survey was published.

The Firwood Training Centre is part of the very considerable development of the Authority's Mental Health Service. It provides first class accommodation for children up to 16 years of age, embodies a creche and also a special care unit. As well as good buildings, trained officers are necessary. There are at present very great difficulties in finding training places for officers who should be seconded for the two year social workers' course. Although the provision of places is increasing, progress is extremely slow and under present arrangements it is going to be very many years before Bolton has a staff which is fully trained. Dr. P. O. Nicholas, Deputy Medical Officer of Health, and Mr. R. A. Johnson, Chief Mental Health Officer, wrote a very interesting paper on Greenmount House which appeared in the British Medical Journal on 22nd October, 1966. The paper aroused considerable interest, many requests being received from overseas for reprints.

Arrangements for screening for cervical cancer are now working well and it is likely that next year there will not be a waiting list and any woman resident in Bolton aged 25 and over who has had a child will be accepted for the test. Until recently there has been criticism of the alleged delay in provision of cervical cytological facilities in this country. A full service is about to be available and the time is rapidly approaching when it will be for interested groups to persuade individuals to come for screening rather than to continue their present campaigns. In British Columbia a comprehensive screening service has been available for 16 or 17 years. The incidence of invasive carcinoma per 100,000 females is now extremely low in those who have had previous cervical smears and as high as 32 per 100,000 in those who had not been included in the screening programme. Cancer of the neck of the womb attacks young women and in England and Wales in recent years it has caused about five in every hundred deaths in women in the 35-39 age group and about six in every hundred deaths in the 40-44 age group. Women who have their children when they are in their teens are two and a half times more liable to have cancer of the neck of the womb. The test used is simple and painless, a smear being taken of the cells in the neck of the womb and examined for any changes which occur before the cancerous stage. Women who married young and have had more than three children and have passed the age of 35 years are those at greatest risk. While examining for cancer of the neck of the womb, it is also a simple matter to examine for any lump in the breast. Since cancer of this part of the body is even more common than cancer of the neck of the womb, it is obviously worthwhile undergoing this screening examination as well. Early detection makes cancer a curable disease.

The report of the Geriatric Survey has now been considered by those Corporation Committees involved, the Bolton and District Hospital Management Committee and its Group Medical Advisory Committee, the Local Executive Council and the Local Medical Committee. It has also been discussed by the officers' liaison group dealing with geriatrics. The survey showed the very increased need for special housing for old people, including houses

with wardens, and that very much greater provision of Part III welfare hostel places was necessary. The survey did not give evidence of a need for additional hospital beds. The report discussed ways of achieving surveillance of those who may be disabled and yet do not report to their doctor. It would seem that the wider use by general practitioners of non-medical personnel such as health visitors and trained nurses may be helpful in this field. This assistance to old people is likely to be greatly facilitated by the list of old people that the Executive Council will presently have available. By co-operation between general practitioners and health visitors, it is hoped that health visitors will be able to keep in touch with any of the older folk in the town who are not receiving regular visits from their general practitioners. It was also thought that a health clinic for old people such as we have in Bolton may make a useful contribution.

As the Chief Constable reports in his Annual Report for 1966, a most disquieting trend has been the illicit use of drugs, the offenders being mainly under the age of 21 and of both sexes. There were 16 prosecutions for drug offences in 1966 and two in 1965. The drug involved was usually cannabis or Indian hemp. Discussions have taken place with police, general practitioners, consultants, pharmacists and Education department staff. Recently arguments have been put forward that, as we accept alcohol and tobacco why should not the use of Indian hemp be legalised. Although the use of alcohol is accepted by the majority in this country, drunkenness and the chronic use of alcohol as a means of escaping from reality are not accepted. We also have to pay a very heavy price for alcohol, as it is estimated that there are 300,000 alcoholics in the country. Tobacco is also a drug which carries a very heavy price of lung cancer, chronic bronchitis and coronary thrombosis. Should we add another drug this also very probably would have disastrous results. Cannabis users in industrial countries frequently have a psychopathic personality and consumption of the drug is frequently the first step towards later addiction to heroin or morphine. There have been at least two published series of cases where individuals, who were not criminals originally, committed serious crime, theft, blackmail, murder etc., after becoming addicted to cannabis or under the influence of the drug. As Dr. Caruana has recently pointed out in the "Medical Officer", 'If cannabis were to be made legal at the moment it is easy enough to visualise that within a very short time, because of the enormously successful methods of advertising, millions of people would be taking it. Should we discover subsequently that it is harmful or addictive we would have to go through the sad chapters that make up the history of cigarette smoking and alcohol, all over again'.

General practitioners and local authority staff continue to work closely together. This will be facilitated in one part of the town when the Halliwell Health Centre is opened in the autumn of next year. The building will provide facilities for six general practitioners and for local authority clinics including child welfare, chiropody, mothercraft and the school health service. It seems likely that another Health Centre will be opened in the Cannon Street area of the town in about three years' time.

In November we ran a most successful anti-smoking clinic on five consecutive evenings in the Town Hall. Many of those attending were helped and I understand that because of the publicity some smokers who did not attend the clinic were persuaded to stop smoking. Such clinics can only deal with very small numbers of smokers. Because men have smoked more than women, men suffer more from the diseases and disabilities that smoking produces, but, during the past 20 years equality of the sexes in this respect has developed quickly. Women are smoking more and more and their death rate will con-

tinue to increase. Smokers should ask themselves whether they are justified in continuing this most dangerous habit. It is most encouraging that as the Annual Report of the Chief Medical Officer of the Ministry of Health for the year 1965 stated, cessation of smoking has in recent years become a measurable factor among adolescents, and that between 1961 and 1963 a rapidly rising tide of adolescent smoking was checked and has receded. There has also been a substantial drop in the proportion of cigarette smokers in men and women between 1961 and 1964. There is considerably less smoking than previously among medical practitioners and their mortality due to diseases produced by smoking has started to decline.

Attendances at child welfare clinics fell slightly compared to the previous year. This is to be expected as some general practitioners are now running sessions for young babies in their own surgeries. Many of our premises are unsuitable for child welfare clinics particularly in winter and improved clinics and health centres will help very considerably.

There was a big increase in the number of registered child minders. They fulfil a useful purpose and the Nurseries and Child-Minders Regulation Act, 1948 gives local authorities adequate supervision and control of child minders and play groups.

We continue to pay special attention and follow up those babies where there are special indications that they may not develop normally. The administrative arrangements are complicated and during the year changes were made, our criteria becoming more selective so that fewer babies had to be followed up, and reliance was placed more on the history obtainable from the mother. The number of babies born at home was again less. This year there were 352 compared with 473 the year before. The midwives remained busy, however, as the number of patients discharged early from hospital increased from 273 to 301 and the midwives dealt with many patients who were originally booked for home confinement, but because of some abnormality developing late in pregnancy were delivered in hospital.

At the end of the year an O. and M./Work Study investigation took place into the health visiting and home nursing services. The following were the terms of reference:

1. To carry out a study of health visitors and district nurses with the object of determining how much the work can be carried out by staff having lesser qualifications.
2. Further to indicate if there are any other means of enabling health visitors to spend a greater portion of their time in direct contact with their clients and district nurses with their patients.

The survey had not been completed at the end of the year but preliminary findings would seem to show that more car allowances are desirable, that there could be a reduction in health visitors' clerical work and that in the case of the district nurses there might be fewer State Registered Nurses and more State Enrolled Nurses employed.

The department received good co-operation from immigrants both individually and from the officers of their organisations.

The department is represented on the Bolton Commonwealth Friendship Council and also on the Statutory Services Sub-committee. Considerable help was obtained from the Commonwealth Friendship Council in many ways, for example, arrangements were made to prepare translations of health pamphlets; slides on health subjects were shown at Sunday afternoon cinema shows for immigrants and immigrants were informed of the assistance available to them. The Commonwealth Friendship Council is publishing a small booklet which will inform immigrants of the help they can receive and about conditions in this country. At present Medical Officers of Health are notified from ports of entry only of those immigrants coming into the country with work permits. These represent a small percentage of the total. No information is given on relatives coming into the country and therefore it is impossible to contact on arrival many of the immigrants who may come to Bolton. It is quite clear that the regulations on this matter should be changed as soon as possible. Informing the Medical Officer of Health ensures that when the immigrant is contacted he can be informed of the health and other services available to him and considerable assistance can be given. In no way does this information interfere with the freedom of the immigrant, his residence or occupation in this country.

The new abattoir provided by a private firm was opened during the year. This is a first class abattoir and offers most excellent facilities for the slaughter and inspection of animals.

Officers of this department continued their very important duties in slum clearance, clean air and clean food, although many important aspects of the work did not receive the attention they should because of shortage of public health inspectors. At the end of the year, 14,262 premises of various kinds were covered by operative smoke control orders and the smoke control programme was running smoothly. An interesting survey of radioactivity in fish and sea-foods was conducted. The levels of radioactivity were the natural levels to be expected in samples of fish. It is intended that these determinations shall be continued.

The Borough Analyst, using liquid gas chromatography equipment was able to test for pesticide residues in various articles of food, and the department took part in the nation-wide survey of these residues.

Six cases of undulant fever occurred, the patients having been infected by unpasteurised milk products. It is hoped that the Government's voluntary eradication scheme for the control of brucellosis will be successful and lead to the abolition of undulant fever in humans.

I wish to thank the staff of the department who have continued to work well in spite of staff shortages and many changes. My thanks are also due to the Town Clerk and other officers of the Corporation, and to the Health Committee for their continued interest and support of the department.



Medical Officer of Health

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PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1966

MEDICAL STAFF

Medical Officer of Health	.. . . .	A. I. Ross, M.D., D.P.H.
Deputy Medical Officer of Health	..	P. O. Nicholas, M.B., Ch.B., D.C.H., D.P.H.
Senior Assistant Medical Officer of Health	.. . . .	J. L. Jackson, M.B., Ch.B., D.P.H.
Assistant Medical Officers of Health and School Medical Officers	.. . . .	Mavis J. Allanson, M.B., Ch.B., D.(Obst.) R.C.O.G. (Part-time) Eve M. Mawdsley, M.B., Ch.B., D.C.H. (Resigned 31.7.66) B. Howarth, M.B., Ch.B. (Liverpool) (Commenced 12.9.66) Dorothy M. Paterson, M.B., B.Ch., B.A.O. (Cork) Audrey Seddon, M.B., Ch.B., D.(Obst.) R.C.O.G. (Part-time) J. H. Swindell, M.R.C.S., L.R.C.P., D.(Obst.) R.C.O.G.

NURSING STAFF

Superintendent Nursing Officer	..	Miss E. M. Richardson, S.R.N., S.C.M., H.V. and Q.N. Certs., D.N. (London)
Deputy Superintendent Health Visitor		Miss A. M. Fraser, S.R.N., S.C.M., H.V. Cert.

HOME NURSING

Superintendent	.. . . .	Mrs. E. Gallaher, S.R.N., S.C.M., H.V. and Q.N. Certs.
Deputy Superintendent	Mrs. E. Hankin, S.R.N., Q.N. Cert.

MIDWIFERY

Non-Medical Supervisor	Miss A. M. Fraser, S.R.N., S.C.M., H.V. Cert.
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DAY NURSERIES

Supervisor	Miss L. W. Booth, R.S.C.N., S.C.M., H.V. Cert (Resigned 14.11.66) Mrs. M. E. Chapman, S.R.N., S.C.M., Q.I.D.N., H.V. Cert. (Part-time)
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PUBLIC HEALTH INSPECTORS

Chief Public Health Inspector	T. Williams, F.R.S.H., M.R.Inst.P.H.H., M.A.P.H.I.
Deputy Chief Public Health Inspector		N. Ryce, M.R.S.H., M.A.P.H.I.

CLERICAL STAFF

Chief Administrative Assistant	.. . . .	W. Greenhalgh
Administrative Assistant	.. . . .	W. W. Markland, D.M.A. (Resigned 21.8.66) P. Murphy, D.P.A. (Commenced 31.10.66)

MENTAL HEALTH SERVICE

Chief Mental Health Officer	.. . . .	R. A. Johnson, M.S.M.W.O.
Supervisor - Junior Training Centre		Miss E. Dobbin, Dip.N.A.M.H.
Supervisor - Adult Training Centre		Mrs. J. Cook, Dip.N.A.M.H.
Superintendent - Greenmount House		P. J. Carroll, S.R.N., R.M.N.
Matron - Greenmount House	..	Mrs. A. Carroll, S.R.N., R.M.N.
Superintendent - Park House	.. . . .	D. D. Gould, R.M.N.

HOME HELP SERVICE

Home Help Organiser Miss O. Brindle, M.I.H.H.O., A.R.S.H., A.I.S.W.

AMBULANCE SERVICE

Superintendent T. R. Walton, F.I.A.O.

ANALYST

Borough Analyst G. J. Holland, B.Sc., F.R.I.C., P.A.I.W.E.

BATHS AND WASHHOUSES

Superintendent	.. .. .	A. Markham, M.Inst.B.M.
Managers	..	
	Bridgeman Street Baths	} A. Markham, M.Inst.B.M.
	High Street Baths	
	Moss Street Baths & Wash-house ..	} T. Taylor, M.Inst. B.M.
	Hennon Street Slipper Baths ..	
	Rothwell Street Wash-house ..	H. Bateson
	Turkish Baths	P. F. Casterton

PART 1

STATISTICAL INFORMATION

Summary of Statistics

Births

Deaths

Deaths from Cancer

SUMMARY OF STATISTICS, 1966

COUNTY BOROUGH OF BOLTON

Position	... ..	Lat. 53° 35' N. Long. 2° 27' W.
Elevation above sea level	... ..	230 ft. to 1,450 ft.
Geological Formation	... ..	Boulder Clay and Sand over Coal Measures
Rainfall (Av. 1887-1966: 48.72")	... ..	53.05"
Area in Acres (Land and Inland Water)	... ..	15,279
Population (Census 1921)	... ..	178,683
„ (Census 1931)	... ..	177,250
„ (Census 1951)	... ..	167,162
„ (Census 1961)	... ..	160,740
„ (Estimated Civilian Population, 1966)	... ..	157,200
New permanent houses, including flats, certified	... ..	640
Existing buildings altered to provide dwelling accommodation	... ..	4
Estimated number of houses in the Borough	... ..	56,918
Rateable Value at 1st April, 1966	... ..	£5,468,907
Rate at 1d. in the £ estimated to produce (1966-67)	... ..	£20,850
Live Births	... ..	2,685
Live Birth rate per 1,000 population (Corrected)	... ..	18.44
Stillbirths	... ..	44
Stillbirth rate per 1,000 live and stillbirths	... ..	16.13
Total live and stillbirths	... ..	2,729
Infant Deaths	... ..	66
Infant mortality rate per 1,000 live births—total	... ..	24.58
Infant mortality rate per 1,000 live births—legitimate	... ..	24.14
Infant mortality rate per 1,000 live births—illegitimate	... ..	28.37
Neo-Natal mortality rate per 1,000 live births	... ..	12.67
Early Neo-Natal mortality rate (under one week)...	... ..	11.18
Illegitimate live births per cent of total live births	... ..	10.75
Maternal deaths (including abortion)	... ..	—
Maternal mortality rate per 1,000 live and stillbirths	... ..	—
Deaths	... ..	2,190
*Death Rate (Corrected)	... ..	14.48
*Average Death Rate (1957-1966)	... ..	14.47
*Heart and Circulation Death Rate	... ..	6.45
*Cancer Death Rate	... ..	2.68
*Death Rate from diseases of the Respiratory System	... ..	2.39
*Pulmonary Tuberculosis Death Rate	... ..	0.06
Diarrhoea Death Rate (Deaths under two years per 1,000 live births)	... ..	—

ENGLAND AND WALES:

*Birth Rate	... ..	17.7
Stillbirth Rate (per 1,000 total births)	... ..	15.4
*Death Rate	... ..	11.7
Infant Mortality (Deaths under one year per 1,000 live births)	... ..	19.0

*Per thousand of population

VITAL STATISTICS

Births:

There were 2,685 live births to Bolton residents, 1,418 males and 1,267 females. The live birth rate (corrected) per 1,000 of the population was 18.44.

A study of the birth figures since the end of World War II shows that the total number of births fell each year from 1947 until 1955, fluctuated for the next four years, and has steadily risen since then except for the year 1963, and now again in 1966 when the number has fallen. This should be seen in relation to the (estimated) population figures. Bolton's population rose each year after the war to a maximum in 1950 of 168,000, since when it has steadily fallen.

The following table shows the pattern of these figures since the last census.

Year	Population	No. of Live Births	Live Birth Rate per 1,000 population (Corrected)
1961	160,740	2,675	16.6
1962	160,650	2,767	17.22
1963	159,780	2,701	18.25
1964	159,190	2,775	18.82
1965	157,990	2,785	19.04
1966	157,200	2,685	18.44

LIVE BIRTHS IN INSTITUTIONS

NUMBER

PERCENTAGE OF TOTAL LIVE BIRTHS

Bolton District General Hospital ..	1,383
Haslam Maternity Home	370
Havercroft Maternity Home	250
Heaton Grange Maternity Home ..	306
In institutions and homes outside Bolton	24

TOTAL	2,333	86.9
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LIVE BIRTHS AT HOME	352	13.1
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The number of births at home and in hospital is dealt with more fully in the midwifery part of the report.

There were 174 premature live births.

Stillbirths:

The number of stillbirths was 44, giving a stillbirth rate of 16.13 per 1,000 of the total live and stillbirths.

The causes of the 44 stillbirths are given in the following table.

Cause of Stillbirth	Number M & F
Diabetes Mellitus	3
Haemorrhage without mention of placental condition ..	4
Toxaemia with convulsions during pregnancy or labour (Eclampsia)	6
Other toxaemias of pregnancy	2
Difficult labour with malposition of foetus	2
Rhesus incompatibility	1
Abnormality of placental cord	3
Breech	1
Atelectasis	1
Anencephalus	6
Hydrocephalus	4
Intra-uterine anoxia	1
Maceration, cause not specified	2
Prematurity	3
Other ill-defined cause	5
TOTAL ..	44

Total Live and Stillbirths:

The total number of live and stillbirths was 2,729.

Deaths:

Deaths numbered 2,190 (1,116 males and 1,074 females), giving a corrected mortality rate of 14.48 per 1,000 of the population.

There were 788 Bolton residents who died outside the borough; of these, 684 died in Bolton District General Hospital or in Townleys Branch Hospital.

Non-residents who died in the area numbered 219.

Summary of the Principal Causes of Death, 1966

Cause of Death	No. of Deaths	Males	Fe- males	0-	1-	5-	15-	25-	35-	45-	55-	65-	75-
Tuberculosis, Respiratory	10	8	2	1	-	-	-	1	-	4	2	1	-
" Other	1	1	-	-	-	-	-	-	-	-	-	-	-
Syphilitic disease	4	3	1	-	-	-	-	-	-	1	2	1	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-
Other infective and parasitic diseases	4	3	1	-	-	-	1	-	1	1	1	-	-
Malignant Neoplasm:													
Stomach	63	35	28	-	-	-	-	1	-	3	15	21	23
Lung and Bronchus	105	86	19	-	-	-	-	-	3	9	40	40	13
Breast	45	2	43	-	-	-	-	-	2	9	11	10	13
Uterus	15	-	15	-	-	-	-	-	3	2	2	6	2
Other malignant and lymphatic neoplasms	194	90	104	-	1	1	3	-	8	22	43	62	54
Leukaemia and Aleukemia	14	6	8	-	1	-	2	1	1	3	4	2	-
Diabetes	17	5	12	-	-	-	-	-	1	3	2	9	3
Vascular lesions of nervous system	299	122	177	-	-	1	-	-	5	9	29	84	171
Coronary disease, angina	388	237	151	-	-	-	-	-	13	31	94	140	110
Hypertension with heart disease	27	9	18	-	-	-	-	-	-	12	7	9	11
Other heart disease	209	86	123	-	1	1	-	2	3	12	26	51	114
Other circulatory disease	91	34	57	-	-	-	1	1	-	5	11	20	53
Influenza	27	11	16	-	2	1	1	-	1	-	1	7	18
Pneumonia	134	68	66	24	1	2	1	1	2	3	11	33	57
Bronchitis	194	139	55	1	-	-	-	-	1	11	48	64	68
Other diseases of respiratory system	22	16	6	-	-	-	-	1	-	3	7	6	5
Ulcer of stomach and duodenum	16	9	7	-	-	-	-	-	-	1	3	2	8
Gastritis, enteritis and diarrhoea	8	4	4	1	-	-	-	-	-	-	3	3	2
Nephritis and Nephrosis	7	5	2	-	-	-	-	-	-	-	-	-	1
Hyperplasia of Prostate	3	3	-	-	-	-	-	-	-	-	-	-	3
Pregnancy, childbirth and abortion	-	-	-	-	-	-	-	-	-	-	-	-	-
Congenital malformations	9	7	2	7	1	1	-	-	-	-	-	-	-
Other defined and ill-defined diseases	179	74	105	28	-	1	3	-	8	12	25	39	63
Motor vehicle accidents	24	16	8	4	-	-	2	-	2	4	4	5	7
All other accidents	56	22	34	-	-	-	4	2	3	2	5	5	31
Suicide	24	14	10	-	-	-	1	1	2	8	6	6	-
Homicide and Operations of War	1	1	-	-	-	-	-	1	-	-	-	-	-
TOTALS	2,190	1,116	1,074	66	4	7	18	12	58	159	402	633	831

Deaths from Puerperal Causes:

There were no deaths from puerperal causes in 1966.

Infant Mortality:

There were 66 deaths of infants under one year, giving an infant mortality rate of 24.58 per 1,000 live births. The infant mortality rate per 1,000 legitimate live births was 24.14, and illegitimate 28.37. The primary causes of death are shown in the following table.

Cause of Death	Age at Death					Total for each cause
	Under 4 weeks	4 weeks to 3 mths	3 to 6 months	6 to 9 months	9 to 12 months	
Prematurity	6	—	—	—	—	6
Congenital malformations	2	—	1	—	—	3
Pneumonia	1	15	8	3	—	27
Post-natal asphyxia and Atelectasis	13	1	—	—	—	14
Birth Injury	7	—	—	—	—	7
Other Causes	5	3	1	—	—	9
TOTALS	34	19	10	3	—	66

Deaths under Four Weeks:

There were 34 deaths of infants under four weeks, giving a neonatal mortality rate of 12.67 per 1,000 live births. The rate for England and Wales was 12.9.

The early neonatal mortality rate (under one week) was 11.18, the total number of deaths being 30.

The following table shows the ages at which death took place.

Cause of Death	0-7 days	8-14 days	15-21 days	22-28 days	Total
Prematurity	6	—	—	—	6
Congenital malformations	1	—	1	—	2
Pneumonia	1	—	—	—	1
Post-natal asphyxia and Atelectasis	13	—	—	—	13
Birth Injury	5	—	2	—	7
Other Causes	4	—	1	—	4
TOTALS	30	—	4	—	34

Five of these babies were under 2½lb. in weight at birth. Some of these are not recorded as having died of prematurity but of respiratory failure and congenital defects; prematurity was an added factor that lessened their chances of survival.

Perinatal Mortality:

The perinatal mortality rate is the number of stillbirths added to the number of infant deaths during the first week of life, expressed as a rate per thousand of total births, both live and still. In 1966 the perinatal mortality rate in Bolton was 27·12 per 1,000 total births.

The following table shows the infant mortality rate, neonatal mortality rate, stillbirth rate, perinatal death rate and the death rate of infants aged one week but under one year, for the last ten years.

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Infant Mortality Rate ..	25·6	27·4	29·0	27·0	19·4	24·2	32·6	19·1	20·5	24·58
Neo-natal Mortality Rate ..	16·7	20·7	17·2	20·0	11·6	18·1	19·6	10·8	14·0	12·67
Stillbirth Rate	21·8	21·0	16·9	19·6	17·6	19·1	16·4	15·3	17·3	16·13
Perinatal Death Rate	37·5	39·3	29·7	34·0	27·5	34·0	32·4	24·8	29·5	27·12
Deaths of infants aged 1 week but under 1 year per 1,000 total births	10·3	8·6	15·7	12·2	9·2	8·9	16·0	9·2	8·1	13·19

General Discussion - (Infant Mortality and Stillbirths)

The figure of 24·58 is higher than the excellent figures in 1964 and 1965 which were 19·1 and 20·5 respectively. However, the neonatal mortality rate for 1966 is 12·67, which is lower than that of the previous year (14·0), and this year more babies survived the first four weeks of life to die in the infant period, and thus increase the infant mortality figure. In addition to a lower neonatal mortality, the stillbirth rate of 16·13 is lower than the rate for 1965, which was 17·29.

Considering the higher infant and neonatal mortality rates for the north-west towns generally, Bolton's figures have been fairly satisfactory in recent years. There is still room for improvement to achieve the low infant and neonatal mortality figures of southern areas of England, but every year sees progress in Bolton with better housing, cleaner air, and a generally improved standard of living for the people.

In Bolton, 82 per cent of the babies are born in hospital or maternity home, and recent papers on infant and neonatal mortality have suggested that this fact alone helps to give Bolton a lead on some of the less fortunate northern county boroughs where the percentage of babies delivered in hospital is smaller.

In 1966 only three babies died from congenital abnormalities in the first year of life. Respiratory causes were the dominant cause of infant death. In the neonatal period, thirteen babies died from post-natal asphyxia and atelectasis, and, more unfortunately, 27 babies died of pneumonia compared with twelve in the previous year. Some of the deaths that were due to post-natal asphyxia occurred in small premature babies, but it is harder to accept the loss of fifteen babies between one and three months old, and eight between three and six months old, and three between six and nine months old from pneumonia, which might be preventable or at least curable.

Localisation of Disease, Number of Deaths and Rate Per Cent of Total Deaths annually for the past ten years

Site	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
Stomach	52	76	60	62	67	73	72	56	61	63
Lung & Bronchus	85	82	82	69	71	98	90	109	110	105
Breast	39	28	33	27	32	40	31	32	22	45
Uterus	19	17	7	21	16	21	6	20	22	15
Other Sites	178	183	177	161	173	172	167	178	167	194
TOTAL DEATHS FROM CANCER	373	386	359	340	359	404	366	395	382	422
TOTAL DEATHS: (All Causes) ..	2,256	2,119	2,113	2,051	2,267	2,212	2,227	2,072	2,088	2,190

Deaths from Lung Cancer

The number of deaths from lung cancer in 1966 was 105, 86 males and 19 females. This is a decrease of five on the previous year. As I pointed out in my report last year, this represents an appalling loss of life.

The following table shows the distribution of deaths according to age and sex.

Age Group	Males	Females	Total
25-34	—	—	—
35-44	3	—	3
45-54	8	1	9
55-64	33	7	40
65-74	31	9	40
75 and over	11	2	13
TOTALS	86	19	105

Average No. of deaths per year, 1956-1960 .. 79

Average No. of deaths per year, 1961-1965 .. 96

No. of deaths from lung cancer in 1966 .. 105

The men and women afflicted with this form of cancer are dying in greatest numbers around retirement age, but in the country as a whole a not inconsiderable number of men died in middle life, at a time when young people need a father. There is much talk about drug addiction amongst teenagers, and the rise in the smoking of hashish is causing concern, but, if we are to prevent the more dangerous addictions of drugs in society, parents must give a lead, and ceasing tobacco smoking is a good guide for the young. All responsible adults, including the "pop" idols, should be careful about the influence they have on the teenagers.

The legislative changes in respect of smoking which I mentioned in my last report are slow in coming. Some authorities have limited smoking at public meetings and in public halls, but we in Bolton have not made much progress in this respect. The person with bronchitis, even if he is a non-smoker, just has to inhale the fumes and suffer.

However, the area of the town covered by smoke control orders is slowly increasing. The Borough Analyst's report shows that smoke has climbed to 160 micrograms per cubic metre of air in 1966, compared with the lowest figure of 140 micrograms in 1964. The sulphur dioxide continued its downward trend in 1966. We in the health department will not slacken our efforts to make Bolton a cleaner place and rid the town of chest disease, but no citizen of the town must believe that clean air will eradicate lung cancer. Only a drastic fall in the smoking of tobacco will produce this.

Fatal Road Accidents:

I am indebted to the Chief Constable for the following information.

"During 1966, 1,704 accidents which occurred in the Borough were reported to the Police.

The number of traffic accidents involving personal injury totalled 792; the number of persons injured in these accidents was 1,043.

Twenty-six persons were killed, this being an increase of 3 on the previous year. Twenty-three of these accidents occurred during the hours of darkness and 3 during daylight hours. Fatal accidents during daylight involved 3 pedestrians aged 76 years, 75 years, 73 years. Accidents during the hours of darkness were responsible for the death of 12 pedestrians aged 83 years, 80 years, 72 years, 71 years, 68 years, 63 years, 62 years, 61 years, 60 years, 51 years, 23 years, 20 years; 7 car passengers aged 69 years, 54 years, 49 years, 38 years, 27 years, 26 years, 24 years; 3 car drivers aged 47 years, 22 years, 19 years; 1 van driver aged 54 years”.

Fatal Accidents in the Home:

There were 29 known fatal accidents in the home in 1966 (including two falls in Old People’s Welfare Homes and one fall in a private nursing home). The reduction in the number of fatal accidents in the home has been quite dramatic over the past three years. The Home Safety Campaign may have contributed to this.

The numbers of known fatal accidents since 1960 are given below.

1960	..	..	..	..	..	..	..	..	..	..	44
1961	..	..	..	..	..	..	..	..	..	..	56
1962	..	..	..	..	..	..	..	..	..	..	43
1963	..	..	..	..	..	..	..	..	..	..	50
1964	..	..	..	..	..	..	..	..	..	..	37
1965	..	..	..	..	..	..	..	..	..	..	34
1966	..	..	..	..	..	..	..	..	..	..	29

There were few deaths in children but a particularly tragic accident involved a three week old baby girl who died of cerebral haemorrhage and bronchopneumonia associated with a fractured skull sustained at her home.

The increased numbers of deaths from home accidents in women over 70 is probably a reflection of the fact that they form a high proportion of the age group as the women outlive the men.

The numbers of elderly will increase in Bolton in the next decade. There is a great need for ground floor flatlet and bungalow accommodation, properly equipped to meet the needs of the senior citizens and thus remove the daily hazards so many are subjected to in their present homes - the uneven floor, the open fires, and stairs which are often unlit.

The following table shows the distribution of accidental deaths in the home according to age, sex and the nature of the accidents.

Cause of Death	Age Group						Total
	Under 70 yrs.		70-79 yrs.		80 and over		
	M.	F.	M.	F.	M.	F.	
Falls - fractured femur ..	-	-	1	3	1	3	8
- other	1	6	2	2	1	4	16
Carbon monoxide poisoning	-	-	-	1	-	-	1
Burns	-	2	-	1	-	-	3
Drowned in sink	-	-	-	1	-	-	1
TOTALS	1	8	3	8	2	7	29

Suicide:

There were 24 suicides in Bolton, four more than in 1965.

The following table shows the distribution of suicides according to age, sex, and the method of suicide applied.

Cause of Death	Age Group						Total
	15-44		45-64		65 and over		
	Male	F'male	Male	F'male	Male	F'male	
Coal gas poisoning	2	-	4	2	2	2	12
Barbiturate poisoning	1	-	1	3	-	1	6
Aspirin poisoning	-	-	1	-	-	-	1
Self-inflicted violence	-	-	2	1	1	1	5
TOTALS	3		14		7		24

The suicide deaths remain much the same as in previous years, 24 this year, compared with 20 in 1965 and 25 in 1964. The "Samaritans" who began their good work in 1965 continued in 1966 to help those in depression and despair. The mental health services of the town value the link with the Samaritans.

The response to the Mental Health Week held in 1966 was not satisfactory. Perhaps it is only when a member of the family suffers mental pain that we realise that we should all be looking out for the lonely in our community.

PART II

LOCAL HEALTH SERVICES

Halliwell Health Centre

Care of Mothers and Young Children

Midwifery

Health Visiting

Home Nursing

Immunisation and Vaccination

Ambulance

Prevention of Illness, Care and After-Care

Home Help

Mental Health

HALLIWELL HEALTH CENTRE

Although the medical profession has accepted in principle the concept of Health Centres as places where general practitioners and the staff of local authorities should join in curative and preventive health services and, although section 21 of the National Health Service Act requires local health authorities to provide, equip, maintain and staff health centres, little has happened until the last few years when there has been a great increase in interest among the medical profession in practising from Health Centres. The few that have been built have been most successful and the doctors practising there now are very content with the excellent facilities and adequate help from the local authority's staff.

In April, 1964, it became clear that three general practitioners in the Halliwell area would lose their surgeries because of slum clearance. The first informal meeting to discuss the possibilities of a Health Centre in Halliwell was held on the 23rd April, 1964, and was attended by five general practitioners and the Medical Officer of Health. Further meetings and discussions took place with the general practitioners and in February, 1965, the Local Executive Council recommended that the Health Centre be approved in principle. Further meetings took place with the practitioners and the Borough Architect and after approval by the Health Committee and the Bolton Borough Council in June, 1965, a sketch plan of the Centre together with the information required by the Ministry of Health was submitted to them for their informal opinion. A formal application was made in November and in that month the Ministry approved the scheme in principle and the cost limit was agreed. The building was begun in July, 1966, and it is expected it will be finished towards the end of July, 1967.

It will be seen that from first discussions about this Health Centre to its completion is likely to take three years three months. All those involved in the scheme showed extreme good will. Thanks are due to the practitioners concerned, the Local Medical Committee, the Executive Council and its Clerk and to the Town Clerk and Borough Treasurer and the officers in their departments who so expeditiously dealt with the many points on which their advice and action were required.

CARE OF MOTHERS AND YOUNG CHILDREN

Ante-Natal Clinics:

At the beginning of the year ante-natal clinics were being held three times a week at the Civic Centre. The clinics on Monday and Wednesday mornings were attended by a doctor as well as several midwives and were for the booking of new patients, as well as for seeing patients nearing the end of their pregnancy when a repeat blood test was needed. The Tuesday afternoon clinic was staffed entirely by midwives and enabled them to carry out routine ante-natal care of their patients.

After May, the Wednesday morning clinic was discontinued, partly because fewer patients were attending and partly because the clinic rooms were required for another purpose.

During the year 474 new patients registered, compared with 680 in 1965, and they made a total of 2,338 attendances. All patients at the first visit had a full medical and obstetric examination and a sample of blood taken for testing. The blood tests were repeated as necessary during the pregnancy and a total of 811 samples were sent to the laboratory during the year. One hundred and sixty-one of the patients also had a routine chest X-ray, but no new cases of active tuberculosis were found. It has been decided to discontinue the routine chest X-ray of pregnant women in 1967.

Maternity packs of sterile equipment for domiciliary confinement were issued to 348 patients during the year.

Ten patients were referred to the Bolton District General Hospital from the clinic because they were unsuitable for domiciliary confinement; five because of multiparity, three on social grounds, one because of multiple pregnancy and one suffering from pyelitis.

Child Welfare Centres:

Attendances at child welfare centres in 1966 fell by 1,724 to 40,487 although the percentage of babies born to Bolton mothers taken to child welfare centres during their first year of life rose from 79 to 82.

The majority of clinics are held in church halls where conditions of heating, lighting and decoration still leave much to be desired. They linger on as the "twilight area" in an otherwise vital and progressive child welfare service.

Details of the centres and of the volume of work carried out are as follows:

CENTRE	DAY	NO. OF SESSIONS	TOTAL ATTENDANCES
Civic Centre	Monday p.m.	46	1,923
Daubhill	do.	46	1,029
Chalfont Street	do.	46	1,865
Deane	do.	46	2,531
Tonge Fold	do.	47	1,746
Astley Bridge	Tuesday p.m.	49	1,643
Halliwell	do.	49	3,037
Chorley Old Road	do.	49	3,195
The Withins	do.	49	1,314
Civic Centre	Wednesday p.m.	49	1,813
Rosehill	do.	50	2,179
Astley Bridge	Thursday p.m.	51	2,932
Civic Centre	do.	51	2,199
Daubhill	do.	49	2,267
Chorley Old Road	do.	49	1,228
Delph Hill	Friday p.m.	50	1,535
Halliwell	do.	49	1,330
Tonge Moor	do.	50	2,984
The Withins	do.	50	3,127
Lever Edge Lane	Saturday a.m. (fortnightly)	25	610
TOTALS:		950	40,487

Details of attendances at different ages are shown in the following table :

Attendances at Child Welfare Centres

Age of Child	First Attendance	Subsequent Attendances	Seen by Doctor at Child Welfare Centre
Born 1966 ..	2,205	16,418	6,027
Born 1965 ..	886	15,826	5,935
Born 1961/64	286	4,866	2,170
TOTALS ..	3,377	37,110	14,132

The medical officers referred some of the children to consultants, always with the family doctors' consent. Details of the 111 cases referred during the year are as follows :

Referred to Ophthalmic Surgeon	18
„ „ Paediatrician	56
„ „ Orthopaedic Surgeon	14
„ „ General Surgeon	18
„ „ Dermatologist	5
	<hr/>
	111

VACCINATION AGAINST POLIOMYELITIS:

NO. OF DOSES GIVEN AT CHILD WELFARE CENTRES		
1st DOSES	2nd DOSES	3rd DOSES
3,002	2,560	2,513

VOLUNTARY WORKERS:

We are indebted to the many workers who continue to give their services so willingly at all the child welfare clinics. Health visitors place much reliance on these ladies, particularly for the sale of goods.

Paediatric Clinic:

During the year the weekly paediatric clinics at the Civic Centre have been continued as before. This clinic has been run as a joint clinic with the Consultant Paediatrician, a school medical officer (Dr. Allanson) and a health visitor, and has mainly developed into a service for handicapped children in an attempt to co-ordinate and organise their care in the most general sense.

A large number of mentally retarded children have been seen and I do think that the parents of these children have benefited by being able to attend a clinic where medical, educational and home advice has been discussed. This seems to be a far better environment in which to sort out these problems than that of a general hospital out-patients, where the cases tend to be mixed with the acute paediatric cases and time is not available for the most essential long discussions with the parents.

The problems of physically handicapped children often increase when they reach school age; this type of case has been seen very frequently at the clinic.

More recently, children with educational problems with a medical bias have also attended, and recommendations for the placement of children in the most suitable schools have been made.

The problems of the handicapped child have so many facets that a co-ordinating clinic is most essential if the proper treatment and placement of these children is to be decided. The following types of handicaps have been seen.

No. of clinics held	46
No. of children attending clinics	214
No. of attendances made by children	361
No. of children discharged from clinic	69

CATEGORIES OF CHILDREN ATTENDING CLINIC:

Mental milestones retarded	43
Speech defects	20
Ear defects and hearing loss	23
Psychological emotional disorders	16
Diseases of nervous system	18
Convulsions	8
Muscular defects	22
Eye defects	3
Bony abnormalities	12
Foot disorders	3
Congenital abnormalities	10
Chest conditions	12
Heart conditions	3
Abdominal conditions	3
Endocrine disorders	3
Metabolic disorders	2
Genital disorders	5
Miscellaneous	8
TOTAL	<u>214</u>

CHILDREN "AT RISK"

During 1966, a decision was taken to modify the existing method of studying babies born "at risk". The "at risk" group consists of children born to mothers who had abnormal pregnancies or not completely normal deliveries, and also includes babies born to families with a strong history of congenital abnormality, familial disease or deafness.

In previous years difficulty has been experienced in acquiring adequate information about many babies born, either in hospital or at home, to decide whether any "at risk" element surrounded the birth or not. Under these circumstances it was felt that the mother herself would be the most fertile source of the kind of information that we required, and to this end, a short questionnaire was compiled for use by the health visitor on her primary visit to the mother and her new baby. Using the information so received, and applying to it the Sheridan "at risk" categories, selected babies were earmarked as "at risk" for a detailed observation of their development. Health visitors were given the responsibility of following up and testing the "at risk" babies. Previously, attempts had been made by the medical staff at child welfare clinics to do the follow up but the administrative difficulties of ensuring that children were taken to the appropriate clinics at the correct age were so great that many babies were not tested.

It was decided to review these babies three times during the first 18 months of life, and to assess their progress in development using Dr. Mary Sheridan's milestones in development as the norm.

An estimated 566 children were born "at risk" during 1966, and developmental progress tests were applied at the three selected ages of 6 - 8 weeks, 6 - 9 months and 12 - 18 months. The volume of work involved necessitated the invaluable assistance of the health visitors who conducted the tests in the children's homes. The health visitors were instructed in the practical application of these tests by a medical officer, and a concise list of tests was compiled and printed for use with each age group indicated, in order that written records could be kept of the responses made by these babies.

All health visitors were asked to refer all babies failing to respond to the standardised tests to the medical officer at the child welfare clinic. The mothers of the babies concerned showed eagerness for further advice. All cases presenting doubt to the medical officers were referred to the Consultant Paediatrician for his opinion.

Of the 593 babies listed as being born "at risk" during 1965, and requiring follow-up during 1966, 9 were referred for consultant opinion:

REASON REFERRED

3 premature babies	1 had suspected hiatus hernia and persistent vomiting.
	1 had haemangioma of right thigh necessitating surgical removal.
	1 had dorsiflexion of left foot.
3 forceps deliveries	1 had failed to pass hearing tests.
	1 had clicking hips.
	1 had blocked tear duct.

1 breech delivery of premature baby	Baby had hypospadias.
1 partial asphyxia due to cord around neck	Baby had flexion deformity of right knee and difficulty in swallowing.
1 mother had epilepsy	There was spontaneous delivery of baby as the cord had snapped.

The figure of 566 born "at risk" during 1966 showed a decrease of 27 over the 1965 figure. Six of these babies were referred to consultants for advice:

REASON REFERRED

2 premature babies	1 had congenital bilateral talipes. 1 developed respiratory distress syndrome.
1 forceps delivery	Baby had hypospadias.
1 mother had Pre-eclamptic toxæmia	Baby had large umbilical hernia.
1 mother had Hyperemesis during pregnancy	Baby had a large bilateral cephal-haematoma.
1 mother 18 years old	Baby had genital inflammation.

Apart from the premature babies who must be followed up only two of the defects found in these babies, for which they were referred to consultants, were connected with the baby being "at risk" as far as the follow-up went: i.e. there was no more reason for these babies having their defects than the other babies born in Bolton who were not at risk.

Our special arrangements for follow-up of "at risk" babies will continue and it is hoped that evidence will be found either to show the value of the follow-up or to show that it should be discontinued.

HANDICAPPED REGISTER OF PRE-SCHOOL CHILDREN

There were 281 children on the register who were physically or mentally handicapped. This shows a large reduction from the previous year. This is because 72 were deleted as they were considered to have either overcome their handicap or not to require special medical or educational treatment in the future. A further reduction was made during the year automatically as the children reached 5 years of age. At that stage they become the responsibility of the school medical service. During the year there were 4 deaths - 2 cardiac, 1 - Klippel Fiel Syndrome and 1 chest infection in a mentally retarded child.

An analysis of those on the register is as follows:

DISEASE OR DEFECT	No. OF CASES
Vision	8
Deafness	14
Digestive system	24
Asthma & eczema	9
Blood disease	2 (Haemophilia, (Haemolytic disease of the newborn)
Mongol	4
Retarded	20
Cretin or dwarf	1
Cardiac	25
Meningitis	3
Epilepsy	32
Convulsions	12
Cerebral palsy & hypotonia	14
Cleft palate	} 21
Hare lip	
Speech	
Congenital dislocation of hip	16
Talipes	14
Orthopaedic	28
Miscellaneous	34

Congenital Abnormalities:

The register of congenital abnormalities has been continued and the notification shows an increase. There were 31 notified in 1966. The incidence of serious congenital malformation is one in fifty of all births, so it would appear that our notifications are incomplete.

It would appear from the figures that have been notified that the more serious abnormalities, such as the congenital heart and the alimentary tract defects, are either not notified or are only detected at a later date.

The figures we have received are as follows:

CONGENITAL ABNORMALITIES NOTIFIED DURING 1966

Total notified - 31.

The congenital abnormalities notified fall into the following categories:

Pilonidal sinus	1
Cleft palate	4
Orthopaedic	6
Congenital dislocation of the hip	1
Talipes	5
Miscellaneous conditions	21
(Anencephalic; Ectopia vesicae; Imperforate anus; Spina bifida; Hydrocoele; Hydrocephalus; Meningocele; Hypospadias)	

Some children had more than one abnormality.

All the children have been seen by the Paediatrician and treatment instigated where necessary.

“The main purpose of the scheme for the notification of malformations in new born babies is the early detection of any trends resulting from the use of drugs or exposure to any environmental factor such as an epidemic of virus disease during the mother’s pregnancy. In order that this be done effectively, notification must be received and the data processed as early as possible. This means that the enquiry is limited to malformations observable at birth”.

The above is an extract from the Annual Report of the Chief Medical Officer of the Ministry of Health for the year 1965.

Two surveys carried out by Exeter on the incidence of congenital defects in children born to Exeter mothers have been published (Medical Officer December 22nd, 1966 and March 25th, 1966). These have shown that severe congenital defects were evident in a higher proportion of the infants who died in the first year of life than in those who were stillborn. The incidence of severe congenital defects among those infants who survived the first year of life was relatively small and were almost negligible as a cause of death in these survivors within the early years of childhood.

Exeter found that not all congenital defects are evident within the first year or two of life and from their figures and ours it is obvious that to notify only at birth the congenital malformations present misses the majority of the cardiac malformations and the hearing losses. For example, rubella malformations unless gross would not be evident at birth. It should be borne in mind that as a measure of epidemiology, notification at birth might not show a true picture and that notification during the first year of life would be of more value.

Ascertainment of Deafness in Young Children - Screening Tests of Hearing:

In January, 13 full-time health visitors, 3 part-time health visitors and 2 school nurses were passed by Professor and Lady Ewing as proficient in screening the hearing of young children, using the tests devised by the Department of Audiology and Education of the Deaf of Manchester University for this purpose. This brought the total number of trained staff to 24 nurses but 3 of the health visitors left during the course of the year.

As in previous years those babies considered to be “at risk” were the ones selected to have their hearing screened in the first instance. In addition any other children in whom a hearing loss was suspected, for example because of delay in talking, were also tested and this group mainly accounts for the older children seen. The “at risk” babies were selected from the birth notifications received from the hospital, maternity homes and midwives and when these children were seven months old their names were passed to the relevant health visitor for a test to be arranged. In a very small number of cases where it was not possible to screen the hearing of one of these babies by the time it was 12 months of age no further action was taken other than the district health visitor keeping the child under observation for any signs of a possible hearing loss.

Towards the end of the year a new system of selecting babies for the "at risk" register was being introduced, based on the observations of the district health visitor instead of the birth notifications, and it will be those babies who will have their hearing screened in the future.

Results

	Under 1 year	%	1 to 2 years	%	2 to 5 years	%	Totals	%
Number tested ..	404	60.0	206	30.6	63	9.4	673	
Passed—								
1st Test ..	386	95.5	178	86.4	43	68.2	607	90.2
2nd Test ..	14	3.5	14	6.8	11	17.5	39	5.8
3rd Test ..	2	0.5	4	1.9	2	3.2	8	1.2
Failed 3 Tests ..	2	0.5	10	4.9	7	11.1	19	2.8
Diagnosed—								
Deaf	0	0	0	0	0	0	0	0
Not Deaf ..	0	0	4	1.9	1	1.6	5	0.7
Under consideration	2	0.5	6	2.9	6	9.5	14	2.1
Where tested—								
At home ..	265	65.6	140	67.9	36	57.1	441	65.6
At clinic ..	136	33.7	64	31.1	23	36.6	223	33.1
At nursery ..	0	0	1	0.5	1	1.6	2	0.3
At surgery ..	3	0.7	1	0.5	3	4.7	7	1.0

The number of children tested rose from 525 in 1965 to 673 in 1966. Nineteen of these children failed all three tests, five were diagnosed not deaf after further investigation and the remaining fourteen cases were still under consideration at the end of the year. Of these fourteen, one child has left the district; three are waiting to be seen in Manchester at the Department of Audiology for further testing; three have been referred to Mr. Mowat for treatment because of a history of otitis media; in three cases it has not been possible to complete the investigations because of lack of co-operation on the parents' part and a further three children are being kept under observation by Dr. Dickson and are to have more hearing tests at a later date. The remaining child under consideration is waiting for admission to a centre for further assessment as a possible case of infantile autism or alternatively mental retardation.

None of the children whose hearing was screened for the first time in 1966 has so far been diagnosed as deaf. However, of the six children who had failed three tests in 1965 and were investigated further in 1966; two have since been admitted to the Thomasson Memorial Special School and the third has been supplied with a hearing aid. The three other children who had failed three tests in 1965 were all treated by Mr. Mowat in 1966; two of them had their tonsils and adenoids removed and this resulted in normal hearing in one case but the other child still had some hearing loss over the low tone and she is to have further operative treatment in 1967; the third child had treatment to both ears which resulted in normal hearing.

The Psychological Testing of Children under Two:

One of the medical officers is trained to use the Griffith Mental Development Scale for the psychological testing of children under two years of age.

Six children were tested during the year; three because of general backwardness in passing the development milestones; one because of delay in talking; one because of lateness in walking; and one baby because she had had treatment for hydrocephalus and her parents were anxious to know the mental prognosis.

Five of the children tested were referred by the Consultant Paediatrician, Dr. W. Dickson, and one was referred by a general practitioner through the health visitor attached to his surgery.

Routine Testing of Babies for Phenylketonuria:

Health visitors carry out the simple test of urine of all babies of about six weeks of age. No cases of phenylketonuria were found.

Care of Unmarried Mothers:

In 1966 the Moral Welfare Worker dealt with 111 cases, 24 of these were girls aged 16 years or less.

	1966	1965	1964	1963	1962
Total No. of girls aged 16 years and under who gave birth to live babies	24	14	11	12	15

Ages of mothers at date of birth of their babies:

Age of mother last birthday:

16 years	16	7	5	10	5
15 years	5	7	4	1	8
14 years	3	—	2	1	2

There has been a sharp rise in the number of girls aged 16 years and under who gave birth to live babies. This is in line with the national trend. One of the most disturbing aspects of the problem is the lack of suitable accommodation for the single woman and her child, when she is not accepted by her own family. This is a social need that could perhaps be considered by some voluntary agency.

Family Planning:

Following Circular 5/66, discussions were held with the Bolton Branch of the Family Planning Association and it was agreed that they should treat patients where contraception was advised on medical grounds and that the Local Authority should pay the cost. Advice was given to 9 patients on medical grounds.

At the Civic Centre there were 1,525 patients who had previously attended and 524 new patients. The number of clinics held was 44. At Tipping Street there were 692 patients who had previously attended and 210 new patients.

Distribution of Welfare Foods:

Sales of Welfare Foods at the Civic Centre and twelve child welfare clinics during the past three years were as follows:

COMMODITY	1964	1965	1966
National Dried Milk	15,230 tins	13,488 tins	11,418 tins
Cod Liver Oil	3,330 bottles	3,508 bottles	3,230 bottles
Orange Juice	36,998 bottles	42,161 bottles	40,848 bottles
Vitamin A & D tablets	4,319 packets	3,863 packets	3,346 packets

Included in these sales were issues to the following institutions:

NATIONAL HEALTH SERVICE INSTITUTIONS	National Dried Milk ..	24 tins
	Orange Juice	342 bottles
DAY NURSERIES	National Dried Milk ..	14 tins
	Cod Liver Oil	180 bottles
	Orange Juice	576 bottles

Day Nurseries:

There are four day nurseries and they provide potential accommodation for 190 children.

Nursery	Accommodation	Average daily attendance
Lowndes Street	43	43
Shaw Street	50	43
Merchall	47	45
Roxalina Street	50	41
TOTALS	190	178

Some of the children who attended the nurseries were social cases in the following categories:

Separated parents	49
Divorced	9
Unmarried mothers	46
Doctor's recommendations	13
Confinements	13
Ill-health of mother	14
Desertion of mother or father	9
Widow	2
Imprisonment of father	1
Unsuitable home conditions	3
TOTAL	159

RETIREMENT OF NURSERY STAFF:

Miss L. W. Booth, R.S.C.N., S.C.M., who was the Day Nursery Supervisor for the past 20 years, retired in November, 1966. Miss B. McDougall, N.N.E.B., who was Matron of Roxalina Street Nursery, also retired during the year.

We are indebted to them for their excellent service.

TRAINING OF NURSERY NURSES:

The training of nursery nurses is done at the Bolton Training Centre, 40 Chorley New Road. During the year twenty-five students were awarded the Certificate of the National Nursery Examination Board. After qualification four of these students have gone to hospital to do general nursing training.

Nurseries and Child-Minders' Regulation Act, 1948:

The past year has seen rapid growth of private play groups run by registered child minders, probably due to the need for many mothers with young children to return to work. To this end they have diligently sought for vacancies in nurseries and nursery schools for their children, and failing in this have, as a last resort, been prepared to pay anyone who will mind their children whilst they work.

This situation has encouraged public-minded citizens, who have the interests of these children uppermost in their minds, to organise play groups. These groups cater for the under-fives to play with other children in a secure safe place with suitable supervision. The child minders include trained nursery nurses and nursery teachers and the play groups are run in private homes or public halls.

Under the Nurseries and Child-Minders' Regulation Act, 1948, those looking after three or more children from more than one family for profit, or in certain circumstances the premises where the children are minded, must be registered with the local authority. The Act gives adequate powers for controlling these activities allowing the local authority to require adequate space for each child, toilet and working equipment and play facilities, cooking and eating facilities where meals are given. A medical officer, a health visitor and a public health inspector kept surveillance on child minders, inspected premises, enforced requirements relating to supervision, space, and toilet facilities required by registration. In the larger play groups we have had most helpful advice from the Education Department's Supervisor of Nursery Education. Difficulties arise when a minder is unknown to the local authority and not registered. The requirements of the Act have been advertised periodically and health visitors and other members of the staff are on the look-out for unregistered minders.

Progress in the development of small children is best when they play with other children of their own age under guidance, and vigorous effort was made to establish the running of the play groups on nursery school lines. A newly formed local branch of the Pre-school Play Groups' Association encouraged a uniform approach to the play groups idea.

A community play group for Christmas shoppers was initiated in a large central public hall, and staffed voluntarily on a rota basis. Community groups are often run on a mother rota basis, with mothers of children in the groups staffing them, and the idea that a nucleus of local child minders will jointly staff a local play group for the community is indeed enterprising.

During 1966, 10 child minders ran play groups and collectively cared for 79 children. By the end of the year another six persons had applied for registration under the Act.

Two industrial nurseries provided accommodation for 99 children, whilst the mothers followed their employment in two local mills.

Dental Treatment:

I am indebted to Mr. A. E. Shaw, the Principal School Dental Officer, for the following information and comments.

"Recruitment difficulties continue to restrict expansion of the Priority Services but dental treatment was given to all referred patients and to all those cases seeking treatment.

The Cotton Street Training Centre received a dental inspection and all cases needing and accepting the offer of treatment received treatment at the Robert Galloway Clinic.

Dental Arrangements

Number of dental treatment centres in use at end of year for services shown below	4
Number of dental officer sessions (i.e. equivalent complete half-days) devoted to maternity and child welfare patients during the year ..	81

Analysis of Priority Dental Care

	Expectant and Nursing Mothers	Children under five
Examined	46	227
Commenced treatment	24	219
Courses of treatment completed	16	139
Scalings and Gum Treatment	7	6
Fillings	44	71
Crowns and inlays	—	—
Silver nitrate treatment	—	—
Extractions	15	254
General Anaesthetics	2	122
Dentures provided: Complete	1	—
Partial	4	—
Radiographs	2	1

Physiotherapy:

During 1966 massage and remedial exercises were given to children from the child welfare centres and school clinics; classes were also held to teach correct breathing and posture.

Ultra-violet light sessions were held four times weekly, twice for infants and twice for school children at the Civic Centre.

From September to March ultra-violet light sessions were held twice weekly at the Lostock Open Air School with supervision of postural drainage afterwards. During the summer term ultra-violet light treatment was discontinued but postural drainage was supervised once each week.

Relaxation classes for expectant mothers were given each morning and also on Tuesday afternoons in conjunction with the Mothercraft Class. During the summer months extra classes were added on Monday afternoons.

In July treatment was started for geriatric patients sent from the geriatric clinic.

On November 14th, the ultra-violet light department was transferred to the Robert Galloway Clinic to allow the Mass Miniature Radiography Unit to occupy the rooms at the Civic Centre, returning on December 19th.

Two afternoons each week exercises were given at Cotton Street Occupation Centre to several partially spastic children and to anyone else needing special treatment.

SUMMARY OF WORK:

					MASSAGE AND EXERCISES	BREATHING AND POSTURAL EXERCISES
No. of Patients	..	..	..	..	84	61
No. of Treatments	..	..	..	..	501	326
No. of New Patients	..	..	..	..	78	50
					ULTRA-VIOLET LIGHT	
					PRE-SCHOOL CHILDREN	LOSTOCK OPEN AIR SCHOOL
No. of Patients	..	..	..	204	269	
No. of Treatments	..	..	1,642	2,592		2,017
No. of New Patients	..	..	162	220		
No. of Sessions	..	..	43	47		
					EXPECTANT MOTHERS - RELAXATION CLASSES	
					NO. OF PATIENTS	NO. OF NEW PATIENTS
Domiciliary Midwifery Service	..	..	..	81	69	489
Maternity Homes	..	..	..	295	235	1,286
Own Doctors	..	..	..	25	24	90
Bolton District General Hospital				59	50	214
					COTTON STREET	
No. of Patients	..	..	..	..	9	
No. of Treatments	..	..	..	..	461	
					GERIATRIC PATIENTS	
No. of Patients	..	..	..	..	13	
No. of Attendances	..	..	..	..	43	

Patients referred from Geriatric Clinic:

Seven patients suffering from bronchitis were given breathing exercises and instructions to practise them at home. Six patients received Infra-Red ray treatment and exercises for muscular pains, chiefly in back. All reported some improvement and three patients said all symptoms had cleared.

MIDWIFERY

Domiciliary Staff

The establishment of ten midwives has remained complete during the year.

One midwife resigned in December, 1966 on gaining a place at Manchester University to read Economics. This vacancy was filled by a full-time midwife on 1st January, 1967.

The temporary part-time midwife appointed in March, 1965 became a permanent member of the staff, in March, 1966. A second part-time midwife joined the staff in October, 1966 to assist with the increasing number of early discharge patients from local hospitals.

The group system is now well established. Midwives consult and pass information much more freely to the health visitor and in this way many of the problems which arise are solved satisfactorily with the combined efforts of health visitor and midwife.

Distribution of Births:

There were 352 domiciliary births, a reduction of 121 on the previous year. The following table shows the distribution of births and comparison with previous years.

	1964	1965	1966
Total Births	2,786	2,822	2,685
Domiciliary	514	473	352
Bolton District General Hospital	1,433	1,509	1,355
Maternity Homes	813	817	902

The number of babies born to Bolton mothers in maternity establishments outside Bolton, excluding Bolton District General Hospital, totalled 25.

Domiciliary Confinements:

Municipal midwives were in attendance at 352 confinements. Visits were made as follows:

Ante-Natal visits	2,039
Nursing visits during the puerperium	6,737
Post-Natal visits	172
Social condition reports at request of B.D.G.H.	2
Ineffective visits to households	800
Giving of Imferon injections	248

The midwives undertook the ante-natal care of 95 patients who had been booked for confinements at home but were delivered in hospital because of possible complications. Some of these were discharged home, usually forty-eight hours after delivery, to the care of the domiciliary midwives. Forty-four of the above patients were attended in their homes by midwives until emergency admission to Bolton District General Hospital.

General Practitioner Ante-Natal Clinics:

Midwives attend three ante-natal clinics weekly, and one ante-natal clinic monthly in general practitioner surgeries.

ANALGESICS:

The "Entonox" apparatus which consists of a simple cylinder containing a mixture of 50 per cent nitrous oxide and 50 per cent oxygen is now beginning to supersede the Trilene apparatus. The midwives prefer to use "Entonox" and have noted that, with the use of this analgesic there is very seldom cyanosis in the baby at birth, even if the 1st stage of labour has been prolonged.

At the end of 1966, all the midwives were issued with the "Entonox" apparatus.

During the year analgesics were administered as follows:

Nitrous Oxide and Oxygen Analgesia (Entonox)	79 cases
Trichloroethylene (Trilene)	189 cases
Pethidine was used for	67 cases

Early Discharge of Maternity Patients from Hospital

The practice of early discharge seems likely to continue. Patients are selected at the time of booking. If the patient is thought to be suitable on medical grounds and wishes to be discharged home early, a domiciliary midwife visits the patient's home to assess its suitability. If unsuitable the patient remains in hospital for the usual length of time unless she takes her own discharge.

The midwives now undertake a second visit to each patient selected for early discharge. It was found that a great many of these patients were attending their own general practitioner for ante-natal care and therefore did not come into contact with the midwives again until the actual birth. Many of those patients were apprehensive and had a real anxiety towards pregnancy, in particular labour. There was a definite need for individual counselling to help to allay existing fears. In the privacy of her home the patient was able to discuss problems and seek advice from the midwife.

The most appreciated aspect of ante-natal teaching was being given knowledge of what to expect, particularly in labour.

These return visits by the domiciliary midwife to these patients have proved beneficial to patient and nurse, and the midwife checks to see that preparations for the patients return home after 48 hours are complete. Consequently, the patient becomes better acquainted with the midwife who will visit her on her return home from hospital.

	1965	1966
No. of investigations requested by Bolton District General Hospital	331	338
No. of investigations NOT suitable for early discharge	18	41
No. of selected early discharged patients nursed by domiciliary midwives	273	301
No. of patients discharged home after 48 hours - not selected . .	34	68

In some cases lack of assistance or inadequate assistance is still prevalent in the selected early discharge patients, despite the assurance to the midwife when the patient was assessed during the ante-natal period that adequate help would be forthcoming.

Details are as follows :

No Help	Dependent on Neighbours	Mother or Mother-in-law	School children	Husband		
				On Holiday	Off Work	Unemployed
15	4	14 (Part-day) only 2 (Ten days) only	School-girls 9-16 yrs. 7 School-boy 7 yrs. 1	1 week, 15 1-4 days 12	6	11
TOTALS 15	4	16	8	27	6	11

87

Sixty-eight patients not selected for early discharge were discharged home early from Bolton District General Hospital and the Maternity Homes for various reasons.

Fourteen of the above patients had little or no help available at home.

Details are given below :

No Help	Dependent on Neighbours	Mother or Mother-in-law	School Children	Husband		
				On Holiday	Off Sick	Unemployed
3	1	4 (Part-day) only	1	1 week 3 2 days 1	—	1
TOTALS 3	1	4	1	4	—	1

14

Nineteen patients were discharged home at the request of Bolton District General Hospital for various reasons.

Details are given below :

Stillbirths	Baby died	Baby trans. to Pendlebury Hospital	Mongol	General Practitioner's request
7	5	3	1	3
TOTAL				

19

Apart from the lack of assistance at home in some cases and the extra work caused by the patients taking their own discharge to unsuitable homes, the system continues to work smoothly. The combined efforts of hospital, ambulance service and domiciliary midwives have helped towards the success of this scheme.

Medical Aid:

Medical aid was sought by domiciliary midwives on 91 occasions from doctors for the following conditions:

RELATING TO MOTHER:	NO. OF
ANTE-NATAL CONDITIONS	CASES

Ante-partum haemorrhage	5
Tachycardia	1

DURING LABOUR:

Abnormal presentation	1
Breech presentation	1
Delay in 1st stage of labour	5
Delay in 2nd stage of labour	1
Foetal distress	4
Impacted shoulders	2
Incomplete abortion	1
Post-partum haemorrhage	5
Premature labour	9
Perineal tear	30
Labial lacerations	1
Retained Placenta	3
Uterine Inertia	2
Undiagnosed twins	1

DURING THE PUERPERIUM:

Secondary Post-partum haemorrhage	2
(One of the above patients was a selected early discharge patient from Bolton District General Hospital).	
Post Eclampsia	1
(This patient was delivered in Bolton District General Hospital but took her own discharge after 48 hours)	

RELATING TO THE CHILD

Blue Asphyxia	2
Asphyxia Pallida	1
Blood in Stools	1
Haemorrhagic disease of the new born	2
Stillbirth (Fresh)	2
Stillbirth (Macerated)	1
Sticky Eyes	1
Septic spots on eyelids	1
Thrush (oral)	1
Unbooked cases B.B.A.	3

Flying Squad:

The Flying Squad (Emergency Obstetric Team) from Bolton District General Hospital was called by domiciliary midwives as follows:

PATIENTS TREATED BY OBSTETRIC TEAM AND TRANSFERRED TO BOLTON DISTRICT GENERAL HOSPITAL:

Post-partum Haemorrhage	.. .. .	3
Retained placenta	.. .. .	2
Impacted shoulders and Post-partum haemorrhage	.. .. .	1

PATIENTS TREATED BY OBSTETRIC TEAM AND ALLOWED TO REMAIN AT HOME

Impacted shoulders resulting in a stillbirth	1
Retained placenta: Separated, was expelled at home	.. .. . 1

Testing for Congenital Dislocation of the Hip:

Midwives continued to test all babies born at home. No case of congenital dislocation was detected in 1966.

Refresher Courses:

Two midwives attended a post-graduate course at Oxford University. Four midwives attended sessions of a conference in Preston organised by Lancashire County Council.

Health Education:

Midwives continue to teach at the Mothercraft Class held in the Civic Centre. It would be helpful in the future if midwives could be trained to assist with relaxation classes. The establishment of combined relaxation/mothercraft classes in one session may then attract more mothers to attend.

Sterile Maternity Packs:

In the past midwives had to sterilise equipment and instruments in their own homes or at the patient's home. In some cases this proved most unsatisfactory.

The Central Midwives Board Rule of Midwifery Practice requires a midwife to keep herself informed as to developments of obstetric practice, particularly in relation to such matters as sepsis and use of antiseptics.

A sterile pack was introduced to some members of the staff for a trial period. The equipment (instruments, disposable gloves, disposable towels, etc.) is packed in a special Bric Pack Box, which is sterilised by the Central Sterilising Unit at Bolton Royal Infirmary. At present, after each delivery, a midwife washes instruments and equipment, repacks the box which is brought to the Civic Centre to be sent to Bolton Royal Infirmary for sterilisation.

Each Set contains the following:

2 Bowls	2 prs. Artery Forceps
1 Gallipot	1 pr. Cord Scissors
2 Receivers	1 pr. Dissecting Forceps
1 - $\frac{1}{2}$ pt. Jug	Needle and Nylon Thread for stitching

This pack has been appreciated by the midwives. There is less risk of infection to mother or baby as the pack is not opened until the patient is ready for delivery and therefore a higher standard of sterility is maintained. It is also labour saving for the midwife, not having to sterilise the equipment herself after each case. This is especially welcome if the midwife has been out all night.

Cases which should have been delivered in Hospital and refused Hospital admission

No.	Gravida	Reason	Result
1	10	Anaemia of Pregnancy. Mild P.E.T. No ante-natal care until 38th week.	Refused hospital confinement. Delivered at home. G.P. present. Admitted to hospital 8th day. Megaloblastic Anaemia. In Hospital 1 month. Took own discharge. Would not accept advice from G.P. or Consultant Obstetrician.
2	4	Previous A.P.H. and retained placenta	B.B.A. Satisfactory. Remained at home.
3	4	Spontaneous B.B.A.	Baby died 20 mins. after birth en route to hospital.
4	3	Premature labour. History of prem. labours.	Transferred to hospital with baby. 4 lbs. 2 ozs.
5	6	Multiparity. Refused to go into hospital.	Satisfactory.
6	3	Previous history of toxæmia and post-partum hæmorrhage.	Stillbirth. Impacted shoulders. Weight 11 lbs. 7 ozs.
7	4	Baby small for dates. Refused hospital admission.	Face presentation. Foetal distress. Shocked infant at birth. Premature infant 4 lbs. 11 ozs. Transferred to premature unit Bolton District General Hospital.
8	4	Previous post-partum hæmorrhage.	B.B.A. Baby cord snapped, hit the floor. Post-partum hæmorrhage. E.O.T. summoned. No doctor available to come from hospital. Patient transferred to Bolton District General Hospital.
9	5	Multiparity. Low H.b. Rh Neg. Refused hospital admission.	Satisfactory.
10	4	Multiparity. Refused hospital admission. Did not want to leave other children.	Post-partum hæmorrhage. E.O.T. summoned. Baby impacted shoulders. Mother and baby transferred to B.D.G.H.
11	6	High parity. Social conditions. Refused hospital admission. Separated from husband.	Satisfactory.
12	10	No ante-natal care. Psychiatric patient. Lived alone. Separated from husband. All other children in care of Local Authority.	B.B.A. Retained placenta. Mother and baby transferred to hospital.
13	4	Undiagnosed twins.	Post-partum hæmorrhage, after 2nd twin. Transferred to hospital.

HEALTH VISITING

Staff:

At the end of the year staff comprised:

- Superintendent Nursing Officer
- Deputy Superintendent Health Visitor/School Nurse (Part -time)
- 4 Group Advisers
- 3 Field Work Instructors

32½ Health visiting staff comprising:

Qualified Health Visitors	....	..	..	20½	(equivalent)
School Nurses - S.R.N.	..	..	..	9	
Centre Nurse - S.E.N.	..	..	..	1	
Health Assistants (unqualified)	..	..	..	2	(equivalent)
1 Clinic Nurse	..	..	..	..	(equivalent)

ESTABLISHMENT:

- Superintendent Nursing Officer
- Deputy Superintendent Health Visitor/School Nurse
- 4 Group Advisers
- 3 Field Work Instructors
- 35 Health Visitors
- 1 Clinic Nurse

Included in the qualified health visiting staff were three health visitors engaged almost solely with patients of group practices, one health visitor engaged solely on work with problem families, and one health visiting officer engaged solely with health education.

STAFF SHORTAGES:

Three health visitors completed their training during 1966, at the Bolton Institute of Technology and joined the staff in September.

Recruitment of qualified staff remains a major difficulty. The established policy of sponsoring suitable candidates for training appears to be the only way to maintain and improve the present level of staffing.

Nationally there is an increasing demand on the country's resources of women able to qualify and work as health visitors, teachers and social workers.

The traditional supply of single women who plan to make a career of health visiting is no longer available. Today the trained nurse wishing to qualify as a health visitor is usually married, often with young children, who hesitates to embark on a strenuous course of study lasting a full calendar year.

Careful selection of candidates is essential to ensure that with training they are capable of undertaking the complex duties of health visiting in an expanding community service. Six students were selected for training, but one withdrew within a few weeks of starting the course. The policy of diluting the health visiting staff with less highly trained personnel continued on the lines indicated last year as a result of recommendations of Circular 12/65.

FIELD WORK INSTRUCTORS:

Recommendations of the Council for the Training of Health Visitors were implemented by the establishment of three appointments of Field Work Instructors. These were filled by district health visitors already in a post who had a special interest in supervising practical experience for students. It was necessary to limit their case-loads to approximately 300 families to enable them to cope with their extra responsibilities. Two students were attached to each Field Work Instructor during the year.

STAFF TRAINING:

Health visitors attend courses at five yearly intervals to keep them up to date and well informed. This is of vital importance today in a world of rapid change and development. Health visitors no longer limit their advice and teaching to mothers with babies and young children, but are expected to be knowledgeable and able to discuss and advise on a wide variety of subjects which may be a source of worry to parents, the middle aged, elderly persons and the public in general.

A small but comprehensive library is maintained for the use of health visitors, who find it very useful when preparing talks to groups of widely differing interests. Periodicals of nursing and social subjects are also readily available.

One health visitor attended the summer school at Cambridge organised by the Health Visitors' Association and one health visitor attended a course in London for Field Work Instructors. Four health visitors attended a two day refresher course organised for Manchester health visitors on Medical and Social Aspects of Immigration. The Superintendent Nursing Officer attended a three day course in London and the Study Day for Lancashire County Council health visitors at Preston. The Deputy Superintendent Health Visitor attended the Annual Conference of the National Association for Maternal and Child Welfare in London. Five health visitors and the health visiting officer attended a one day conference in Manchester on Child Care Examinations in schools.

Training of Student Nurses and Other Visitors:

The Medical Officer of Health and the Deputy Medical Officer of Health gave lectures to student nurses at the Bolton School of Nursing in accordance with the requirements of the General Nursing Council's syllabus.

Twenty-four student health visitors attending the course at the Institute of Technology in Bolton received their introduction to Public Health by a visit to the Health Department at the beginning of the course. Eight of these students were subsequently attached to the health visiting section of the department for their practical training during the 1966-67 Health Visiting Course.

A total of 224 hospital student nurses in training at the Bolton School of Nursing and 18 cadet nurses visited the Health Department, 162 during their first year of training to observe the work of the ante-natal clinic, mothercraft classes and child welfare clinics, 62 at the end of their three years' training to spend a day accompanying health visitors on a wide variety of home visits.

This practical experience was followed by a meeting of the student nurses and Health Department staff. Points of interest raised during the visits led to lively discussions and gave some indication that the student nurses had gained insight into the many problems faced by the general public and the community services available to them.

Other visitors to the department who wished to observe the work of health visitors included 5 students studying for the Certificate of Social Work at Manchester College of Commerce, 3 student Hospital Tutors taking the experimental one year course at the College of Education (Technical) Bolton, a County Area Nursing Officer taking a course at Liverpool, a student taking a course for Home Teachers of the Blind, and several student teachers.

Home Visits:

The total number of visits paid by health visitors increased by 1,339, to 33,703. This reflects the changing content of their work. Visiting is no longer mainly confined to mothers with young children, but involves family care over the whole age range. This enables the health visitor to assess the way in which a family may react, particularly in times of stress.

There was an increase in return visits to babies under one year of age. This may be due in part to the health visitors close support of immigrant Asian mothers with young babies. Many visits may be required to ensure that advice given by general practitioners or at clinics is understood and being followed out.

Analysis of Home Visits

First visits to babies born 1966	..	..	..	..	..	..	..	2,538
Subsequent visits to babies born 1966	..	..	..	..	..	..	..	5,101
Visits to children born 1965	..	..	..	..	..	..	..	5,971
Visits to children born 1961/64	..	..	..	..	..	..	..	7,079
Infectious disease visits	..	..	..	..	..	..	..	376
After-care visits	..	..	..	..	..	..	..	152
Visits to mentally disordered persons	..	..	..	..	..	..	..	156
Chronic sick visits	..	..	..	..	..	..	..	3,497
Visits in connection with priority rehousing on medico-social grounds								363
Miscellaneous visits	..	..	..	..	..	..	..	4,084
Ineffective visits to households	..	..	..	..	..	..	..	4,386
TOTAL								33,703

Tuberculosis Visiting:

One full-time health visitor carried out the duties of after care of tuberculosis patients. She was assisted at Chest Clinic sessions by a part-time clinic nurse.

Tuberculosis Visiting:

Number of visits to patients	..	..	..	..	219
Number of ineffective visits	..	..	..	..	50

Contact tracing of immigrant tuberculosis patients was still difficult because of the frequent change of address, but the language barrier was overcome in the majority of cases with the appointment of a member of the health visiting staff who had nursed for several years in Asia and was able to communicate with many of the families.

Geriatrics:

The process of ageing cannot be prevented, but some of the disabilities can be minimised by the health visitors understanding and sympathetic handling of the factors involved. She is in the unique situation of being a regular visitor to homes where there may be children, young persons, the middle aged group and the elderly. She is a key worker in the field of prevention and assessment, and as a nurse understands the treatment that the practitioner may initiate. During her nurse training she has learned to observe, not only the signs and symptoms of physical and mental illness, but to note changes in the emotional pattern and has learned to cope with distress of all types.

The role of the health visitor in services for the elderly includes the fostering of good personal relationships within the family so that older members continue to be respected members whose needs are accepted and met by the rest of the family with understanding and sympathy. As a health educator she has the opportunity to prepare elderly persons for the limitations of age and teach the best means of combating them, thereby helping in the prevention of lame accidents, and the maintenance of health and independence. She should encourage them to make full use of their faculties so that they remain active and interested in their surroundings, and help them to adjust to changing circumstances and limitations by teaching them to modify their habits and attitudes.

When health breaks down or the elderly person can no longer cope with the situation the health visitor is able to initiate any necessary care.

Registration of old age is not a statutory requirement, and therefore, health visitors have a duty to seek out cases of elderly persons in the community who may require help to make growing old a less daunting and lonely experience. Close working partnership with general practitioners is useful in enabling the health visitor to assess the needs of those elderly patients who may be in most need of her support and social advice.

The health visitor appointed to work mainly with elderly persons in close co-operation with the Consultant Physician in Geriatrics carried out her duties on the lines discussed in previous years.

Assessing the social aspects of applications for rehousing on medical grounds involved the health visitors in 363 visits, an increase of 59 over 1965. As in previous years the majority of cases were applications from elderly persons requesting rehousing to ground floor accommodation or transfer to housing in a more level area of the town. Several applicants living alone, in large family houses, were occupying a single room on the ground floor because they were no longer able to cope with the rest of the house. Until more ground floor accommodation is available this aspect of health visitors work is likely to become even more time consuming.

Number of geriatric cases visited by health visitors	1,349
Number of visits to geriatric cases	2,148
Number of domiciliary visits, included in the above, paid by the Geriatric Consultant accompanied by the specialist health visitor	624

Paediatrics:

Health visitors continued to play their part as the link between hospital and home as outlined last year. Their knowledge of the family background was useful to the Paediatric Consultant when assessing cases admitted to the unit, particularly where neglect or cruelty was thought to be involved.

Health Education:

The health visitor is a regular visitor to homes where she meets members of all ages, from babies to the elderly. She adapts her teaching to the particular needs of the family. As well as education within the family circle the health visitor undertakes more formal teaching in clinics, schools and other groups. As a result of the increasing number of requests for talks on subjects relating to health it was thought desirable to appoint a specialist health visitor to develop and co-ordinate this important aspect of the work. In August a health visiting officer was appointed. Here is his account of health education services in the Health Department at present:

“By the very nature of their work, health visitors are continually involved in the health education of the families who they visit, but in addition to this are more formal teaching duties. These can be reviewed under the following divisions:-

ANTE-NATAL PREPARATION:

Two mothercraft classes are run each week in the Civic Centre. Attendances have fluctuated but measures are in hand to make these courses more widely known. Our first short course for both mothers and fathers was most successful and we plan to increase these next year.

SCHOOL HEALTH EDUCATION:

Three schools have regular mothercraft courses and three other schools run shorter courses. Our health visitors are also called upon to run similar courses for the British Red Cross and Duke of Edinburgh Certificates. Further use of the health visitors expert knowledge is called upon talks in schools on such special subjects as sex education, venereal disease, alcohol, smoking, courtship and marriage etc.

MOTHERS' CLUBS:

Our three clubs, Civic Centre, Astley Bridge and Withins, continue to thrive and provide a useful and interesting outlet for a great deal of health education to mothers of young children.

ELDERLY:

The health visitors are very popular with the elderly and have been invited to give talks on a variety of health topics to many old age pensioners' clubs and associations.

OTHER WORK:

Observation visits to our department are increasing and the opportunity is taken to speak to these groups on matters of healthful living as well as showing them the workings of the clinics. We continue to supply speakers on various aspects of our work to many voluntary organisations.

We are increasingly aware of the expansion and broadening of the health visitors duties, especially in the field of health education. Each year

sees more health visitors involved in formal teaching. Whilst this occupies an increasing amount of their time we feel that in the long run results will prove this to be an investment."

Liaison with General Practitioners:

Further progress in attaching health visitors to general practices has been delayed only by the shortage of staff and the administrative difficulty of allocating available health visitors to single practices with patients living over a widely scattered area. The establishment of group practices and provision of more car allowances to health visitors would give vital impetus to progress in this field. Health visitors already attached to group practices are enthusiastic about the benefits derived not only by the doctors and their patients, but find satisfaction in using fully and economically the skills they have acquired during a lengthy and arduous training. It is hoped that the interest in Health Centres now being expressed by general practitioners may lead to an increase in attachment schemes in the near future.

Three health visitors are at present attached to group practices. In addition health visitors assist at weekly baby clinics in three other practices and a further ten health visitors pay weekly visits to surgeries for discussion of patients and their social problems with the doctors.

We look forward to the opening of the Halliwell Health Centre next year, with its further opportunities for liaison between general practitioners and local authority staff.

The Prevention of Break-up of Families:

Health visitors continued their work with problem families on the lines described last year. A high proportion of cases were large families with low incomes. The health visitor has an important role to play in supporting and helping these families. Assistance with budgeting and obtaining help from available resources may be instrumental in preventing eviction and break-up of the family. This is one of the most time consuming tasks undertaken by the health visitor. It is possible that in the near future much of this work will be undertaken by social case workers now being recruited and trained in increasing numbers, thereby enabling health visitors to exercise their proper function in assessing the health prospects of families, not only in normal times, but particularly in periods of emotional and economic stress, and working out a programme of help and support either by herself or in association with a referral to other agencies.

One health visitor worked solely with problem families during the year. She acted in an advisory capacity to district health visitors on matters relating to families with multiple problems.

The Care of Problem Families by the N.S.P.C.C. Visitor:

During the year, the visitor has had 30 cases under her supervision. Twenty-one of these were carried forward from the previous year. There were 9 new cases involving 29 children. Six cases were closed as satisfactory and 24 cases were still under supervision at the end of the year. All told, 921 visits were made during the year. Of these, 522 were visits of supervision and 339 were miscellaneous visits to public officials, hospitals, schools, estate agents, shops to purchase clothing, footwear, blankets etc. or to make enquiries about hire purchase arrangements.

HOME NURSING

The service continues to be fully staffed although there have been several changes of nursing staff during the year.

There have been ten resignations :

- 3 Queen's Sisters (including 1 male) to work for Lancashire County
- 1 Queen's Sister to work in industry
- 3 Queen's Sisters for domestic reasons
- 1 Male S.R.N. has retired
- 1 S.E.N. district nurse has removed South
- 1 S.R.N. part-time sister has taken a teaching post with the Education Department

Twelve appointments have been made :

- 5 Queen's students
- 1 S.R.N. district sister prior to becoming a Queen's student in 1967
- 3 full-time S.E.N. district nurses
- 2 auxiliary nurses (part-time)
- 1 S.R.N. district sister (part-time)
- 1 full-time Queen's sister has become a part-time member of the staff.

Staff:

The staff at 31st December was as follows :

Superintendent
Deputy Superintendent

FULL-TIME

- 19 Queen's nursing sisters (including 3 senior sisters)
- 2 State Registered nurses
- 5 State Enrolled nurses

PART-TIME

- 2 Queen's nursing sisters
- 2 State Registered nurses
- 1 Clinic Sister S.R.N.
- 2 Auxiliary nurses

TOTAL NURSING

STAFF :

—
33 Equivalent to 29½ full-time staff
—

FULL-TIME

- 3 Student district nurses

The staff work in three groups, each under the guidance of a senior nursing sister. The nursing staff work from their own homes. They telephone their senior sister each morning and at noon to accept new cases and to collect messages, these having been relayed to the senior sisters by the Superintendent or her Deputy.

The groups meet the Superintendent and her Deputy at the Health Department once a week for discussions and to report on the progress of their patients.

The staff work a five day week - 8.30 a.m. to 6 p.m., the week-end being covered by a skeleton staff on a rota basis. Evening calls from 6 p.m. to 10 p.m. are accepted by the Ambulance Station and passed on to the nurse doing late duty.

Treatment Sessions, Health Department

The clinic held in the Home Nursing Section of the Civic Centre is open from 2 p.m. to 6 p.m. Monday to Friday inclusive. This is for the benefit of ambulant patients or those going out to work. These patients received injections for tuberculosis, anaemia, various allergies etc.

	1965	1966
Number of patients attending clinic for injections	91	83

Statistics of Cases and Visits

The figures show a slight increase in the number of children under 5 years with a considerable increase in the number of visits paid to this age group.

This reflects the present trend of nursing sick children in their own homes whenever possible, often with twice daily visits. These figures also correspond to the increase of injections given during the year.

There is a decrease in the number of patients between 5 years and 65 years, but the number of geriatric cases continues to increase.

	No. of patients being nursed at beginning of month in each year				New Cases				Nursing Visits			
	1963	1964	1965	1966	1963	1964	1965	1966	1963	1964	1965	1966
Jan.	960	961	926	958	210	217	204	181	9,858	9,428	7,845	8,311
Feb.	993	968	942	957	218	166	163	209	9,267	8,531	7,541	8,085
Mar.	1012	959	936	960	240	172	191	213	8,878	8,725	8,154	9,012
April	1051	931	928	938	179	207	138	147	9,489	8,937	7,547	7,761
May	994	958	905	942	151	170	137	136	9,437	8,715	7,340	7,741
June	958	941	920	928	132	162	162	142	8,087	8,619	7,428	7,049
July	939	946	961	931	129	156	143	147	7,146	8,101	7,302	6,945
Aug.	931	929	962	928	160	152	132	143	8,313	8,171	7,597	7,250
Sept.	928	936	946	935	136	157	166	132	7,436	7,940	7,481	7,060
Oct.	926	941	958	925	136	153	167	129	8,015	8,807	7,599	6,964
Nov.	901	941	947	920	180	153	182	165	7,974	8,765	7,863	7,480
Dec.	930	927	969	931	195	192	197	179	8,569	8,886	8,294	7,921
TOTALS:					2,066	2,057	1,982	1,923	103,469	103,625	91,991	91,579

	1965	1966
Patients being nursed on 1st January	926	958
New patients attended during the year	1,982	1,923
Totals	2,908	2,881
Patients remaining on books at the 31st December	957	974

NURSING VISITS IN AGE GROUPS:

	1965		1966	
	CASES	VISITS	CASES	VISITS
Children under 5 years ..	44	264	62	488
5 - 64 years	932	27,288	869	25,711
65 years and over	1,932	64,439	1,950	65,380
Totals ..	2,908	91,991	2,881	91,579

SUMMARY OF NURSING TREATMENTS:

	1965	1966
General Nursing	71,832	71,924
Injections	24,454	24,667
TOTALS ..	96,286	96,591

Laundry Service:

Where a patient is incontinent and it is not possible for relatives to cope with the laundering of draw sheets, the laundry service is provided.

The request for this service is made by the general practitioner or the district nursing sister.

The number of patients receiving the service during the year was 141, with an average of 62 patients per month.

Provision of Incontinence Pads:

The number of patients being supplied with disposable incontinence pads continues to increase as more geriatric incontinent patients remain in their own homes to be nursed.

Two types of pads are supplied:

TYPE 1—Large absorbent pads with waterproof backing.

TYPE 2—Smaller absorbent cellulose pads for use in addition to Type 1 where a patient is doubly incontinent.

These are collected from the Health Department by relatives of the patient between the hours of 2 p.m. and 5 p.m. Mondays to Fridays inclusive.

No. of Incontinence Pads supplied during the year:

	1964	1965	1966
Type 1	9,000	13,000	17,534
Type 2	4,032	9,146	11,710
No. of patients receiving the service ..	175	356	379

The relatives are advised how to use the pads to the best advantage and on the method of disposing of soiled pads. Where they live in a smoke control area, or there are no available means of burning soiled pads, an opaque polythene bag is supplied in which to deposit the soiled pads. This is then collected weekly by the Cleansing Department during routine collection of refuse.



Types of dressings which may be included in pack used by Home Nursing Service.



Preparation of dressings at Adult Training Centre, Cotton Street for use in the Home Nursing Service.

Supply of Incontinence Garments

In November, 1966, the services available to incontinent patients were extended to include plastic pants with disposable linings. These are available for ambulant incontinent patients or where the patient gets up in a chair each day. A supply of disposable linings is issued in the same way as the incontinence pads.

Pre-sterilised Dressing Packs

The use of pre-sterilised dressing packs has now been extended to serve all patients requiring them.

Each pack contains :

- 2 dressing towels
- 2 hand towels
- 1 foil gallipot
- 1 wooden spatula
- 3 disposable forceps

plus the dressing required for that particular wound.

The dressing materials are ordered by the general practitioner on prescription to each patient and brought to the Civic Centre by the district nursing sister. From here they are forwarded to the adult training centre at Cotton Street where the dressings are packed ready for sterilisation.

The packs are sterilised by the Central Sterile Supply Unit at Bolton Royal Infirmary and returned to the Civic Centre. The nursing sisters collect and transport a week's supply of dressings to each of their patients requiring them.

The Adult Training Centre at Cotton Street has done an exemplary job in teaching a team of trainee girls to pack the dressings. The initial estimate of 250 packs per week increased to approximately 300 per week by the end of the year, as the service became more widely known to the local hospitals and general practitioners.

The advantages of a pre-sterilised dressing service has been proved beyond doubt:

1. Time saving, therefore allowing the nursing sister to spend more time in contact with her patient instead of using time boiling instruments in the patient's home.
2. Ensures sterility of dressings, even in doubtful environments.
3. Efficiency of technique.

Nursing Equipment:

Nursing aids and equipment are loaned to patients at the request of the family doctor or nursing sister, free of charge. A detailed list of equipment loaned to patients during the year is given on page 74.

Refresher Courses and Study Days:

Three district nursing sisters attended seven-day refresher courses organised by the Queen's Institute of District Nursing. Two attended at Canterbury Hall, University of London and one attended Derby Hall, University of Liverpool.

The Superintendent and Deputy Superintendent attended a Study Day with the emphasis on "Nursing Care of the Handicapped", arranged by Lancashire County Council and held at Preston.

In-service Course on Psychiatry:

A short course on psychology and the early recognition of mental illness was arranged with the Principal Tutor of the Health Visitors' Training Course at Bolton Institute of Technology. A half-day visit to a psychiatric hospital was included in the course. This was attended by the Deputy Superintendent and five senior Queen's sisters.

Hospital Liaison:

The interchange of hospital sisters and district nursing sisters was discussed with the Matron of Bolton Royal Infirmary. It was agreed to do this on an experimental basis, with a view to increasing the liaison between the two, and to enhance the knowledge of the hospital sisters regarding the nursing services of the Health Department.

One hospital sister spent a week working with a senior district nursing sister and visiting the various sections of the Health Department. The following week the district nursing sister worked alongside the hospital sister on the Ward and also visited the various hospital clinics to refresh on new hospital treatments.

Further experiment with this scheme is envisaged before extending it to other hospitals in the area.

Group Attachment:

The attachment of three district nursing sisters to group practices has continued to work smoothly. The three district sisters involved consider attachment a great advantage to the welfare of their patients.

Transport:

Nineteen essential user car allowances are approved for full-time staff.

One full-time member of staff uses a departmental car.

Two part-time members of staff use departmental cars.

IMMUNISATION AND VACCINATION

Immunisation:

As last year's report indicated the schedule for immunisation has been altered following the Ministry's advice that oral poliomyelitis vaccine could be given concurrently with the triple (diphtheria, pertussis, tetanus) vaccine. The Ministry also advised that these vaccines could now be given at an earlier age than hitherto without any loss of effectiveness. With the shorter time interval between the baby's first visit and his immunisation the alteration has meant a better continuation of infant welfare supervision.

This year has seen the start of a new scheme of domiciliary immunisations by health visitors. The children so immunised are those who for a variety of reasons, usually social, would be unlikely to attend child welfare clinics.

The revised programme of immunisation is as follows:

3 months	Triple Antigen and oral Poliomyelitis vaccine
4 months	Triple Antigen and oral Poliomyelitis vaccine
5 months	Triple Antigen and oral Poliomyelitis vaccine
16 months	Smallpox vaccination
18-21 months	Triple Antigen booster plus Poliomyelitis booster
5 years	Diphtheria and Tetanus Antigen and oral Poliomyelitis vaccine
5½ years	Smallpox vaccination
13 years	B.C.G. vaccination

Source of Immunisation

	Diphtheria Immunisation only	Diphtheria and Tetanus	Combined Whooping Cough and Diphtheria	Triple Antigen	Tetanus	Whooping Cough only	Re-inforcing Injections		
							Diphtheria only and Whooping Cough and Diphtheria Combined	Triple Antigen	Diphtheria/ Tetanus and Tetanus only
No. of Children Immunised at Child Welfare Centres ..	-	112	-	1,828	77	-	-	1,119	207
No. of Children Immunised in Schools	-	-	-	-	-	-	4	-	1,287
No. of children immunised at home by health visitors ..	-	-	-	51	2	-	1	7	1
No. of Children Immunised by General Practitioners and for whom a record card was received by the Health De- partment	-	-	-	142	1	-	1	128	18
TOTALS	-	112	-	2,021	80	-	6	1,254	1,513
GRAND TOTAL ..				4,986					

IMMUNISATIONS FOR CHILDREN UNDER 16 YEARS OF AGE

	Primary Courses						Re-inforcing injections						Totals
	Born 1966	Born 1965	Born 1964	Born 1963	Born 1959/62	Others under age 16	Born 1966	Born 1965	Born 1964	Born 1963	Born 1959/62	Others under age 16	
Triple antigen	684	1,108	103	63	59	4	4	569	560	48	71	2	3,275
Diphtheria/Whooping Cough	-	-	-	-	-	-	-	1	-	-	-	-	1
Diphtheria tetanus . .	2	4	1	4	100	1	-	10	4	3	1,479	3	1,611
Diphtheria only	-	-	-	-	-	-	-	-	-	-	5	-	5
Whooping Cough only	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetanus only	-	-	-	-	79	1	-	-	1	-	10	3	94
	686	1,112	104	67	238	6	4	580	565	51	1565	8	4,986

Vaccination against Poliomyelitis:

Age Group	Numbers who have received three doses during 1966	Numbers who have received reinforcing doses during 1966
Born 1966	774	—
Born 1965	1,449	4
Born 1964	179	5
Born 1963	89	15
Born 1959/62	333	1,575
Others under 16 years ..	57	19
Others over 16 years ..	73	14
TOTALS: ..	2,954	1,632

Total number who have received three doses of poliomyelitis vaccine since the scheme began 68,937

Total Number who have received reinforcing doses since the scheme began 17,069

Vaccination against Smallpox:

The presence of variola minor in South Lancashire and the necessity for International vaccination certificates by those travelling to popular holiday countries resulted in a larger number of vaccinations than usual being done.

Special vaccination clinics had to be set up to cope with this increased number of people. The whole event emphasises the necessity for routine childhood vaccination against smallpox as advised by the Ministry of Health.

In Bolton the recommended age for primary vaccination is 16 months.

Three thousand eight hundred and seventy-four vaccinations were performed in Bolton in 1966. One thousand seven hundred and ninety-three were primary and 2,081 were revaccinations.

		AGE IN YEARS			
		Under 5	5 - 15	Over 16	Total
Primary	.. ..	902	201	690	1,793
Re-vaccination	.. ..	35	157	1,889	2,081
		<hr/>	<hr/>	<hr/>	<hr/>
TOTALS (1966)		937	358	2,579	3,874
TOTALS (1965)		827	114	359	1,300

NUMBER OF PRIMARY VACCINATIONS UNDER 5 YEARS OF AGE:

1952	639
1953	1,255 (local cases of smallpox)
1954	1,076
1955	1,098
1956	1,073
1957	1,248
1958	1,304
1959	1,358
1960	1,375
1961	1,462
1962	2,042 (cases of smallpox in country)
1963	124
1964	560
1965	793
1966	937

AMBULANCE

The Local Health Authority continued as in previous years to provide full ambulance cover within its own area, and on an agency basis full ambulance cover for the Turton Urban District on behalf of the Lancashire County Council.

Further ambulance services were provided for the Emergency Flying Squad situated at the Bolton District General Hospital and for the Steelworks of John Booth and Sons (Bolton) Ltd.

General Review:

The year 1966 was not distinguished by any outstanding developments in the operation of the ambulance service, but progress was maintained throughout all aspects of the work. The total of 61,146 patient removals during the year, the highest on record, indicates the progressive demand being made on the service. The rate of growth in demand during 1966 was, however, noticeably less than the previous three years especially in respect of removals within the County Borough. In respect of patient removals from the Turton Urban District a further increase of 16% is again in keeping with the residential developments being carried out in that area.

Arrangements for long distance journeys of stretcher patients have presented problems due to the curtailment of rail services, the increasing use of diesel trains, and the very substantial increase in cost. It would appear likely that future years will see less use of rail transport in respect of stretcher cases. Development of the Ambulance/Rail/Ambulance system of removal for sitting patients has continued satisfactorily.

The total mileage of ambulance vehicles 180,375 is again the highest on record; however, the average miles per patient 2.94 remains fairly constant and is very satisfactory indeed.

The problems of coping with an increasing number of patients and mileage with a fixed establishment of men and vehicles will be appreciated and should this trend continue it will become necessary to review the establishments of the service.

The following table shows the total mileage and the total number of patients carried, together with the average miles per patient during the past fifteen years.

Year	Total Mileage	Total Number of Patients Carried	Average Mileage per Patient
1952	153,709	36,171	4.25
1953	152,520	37,102	4.10
1954	156,504	42,822	3.65
1955	162,750	50,496	3.22
1956	161,578	51,365	3.15
1957	158,270	49,583	3.19
1958	162,062	49,921	3.25
1959	162,542	49,626	3.27
1960	174,798	58,360	3.00
1961	173,571	56,316	3.08
1962	179,481	57,782	3.11
1963	165,590	54,207	3.05
1964	163,460	56,422	2.90
1965	166,946	60,070	2.78
1966	180,375	61,146	2.94

Patients carried by Rail:

	Patients Carried			Ambulance Vehicle Mileage		
	Stretcher Cases	Sitting Cases	Total Patients	Stretcher Cases	Sitting Cases	Total Patients
Bolton Borough	1	100	101	29	430	459
Turton U.D.C. . .	—	10	10	—	111	111
TOTALS: . .	1	110	111	29	541	570

Miscellaneous Journeys:

Work done on behalf of	Patients Carried			Miles Travelled		
	Stretcher Cases	Sitting Cases	Total Patients	Stretcher Cases	Sitting Cases	Total Patients
J. Booth & Sons, Ltd.	3	—	3	14	—	14
Private patients	2	—	2	70	—	70
Other local authorities . .	—	2	2	—	9	9
Borough Police	4	—	4	20	—	20
Lancashire County Council (Other than Turton)	25	23	48	213	172	385
TOTALS: . .	34	25	59	317	181	498

Monthly Analysis of work done by the Ambulance Service:

The following table gives details of the ambulance and sitting case mileage, and the stretcher and sitting case patients carried:

BOLTON

	Patients Carried						Miles Travelled					
	Accident and Emergency			Other Cases			Accident and Emergency			Other Cases		
	Stretcher Cases	Sitting Cases	Total	Stretcher Cases	Sitting Cases	Total	Stretcher Cases	Sitting Cases	Total	Stretcher Cases	Sitting Cases	Total
Month												
January	181	186	367	502	3892	4394	757	588	1345	2635	8496	11131
February	167	152	319	497	3678	4175	762	577	1339	2497	8284	10781
March	185	186	371	495	4120	4615	762	587	1349	2425	9452	11877
April	175	186	361	466	3664	4130	726	637	1363	2558	7977	10535
May	171	206	377	480	4198	4678	767	671	1438	2392	8439	10831
June	168	211	379	425	3945	4370	700	691	1391	2420	8251	10671
July	174	173	347	386	3506	3892	766	598	1364	2114	7624	9738
August	171	210	381	432	4241	4671	764	749	1513	2111	8703	10814
September	163	205	368	425	4206	4631	677	670	1347	2278	8893	11171
October	178	173	351	456	4024	4480	765	548	1313	2402	8617	11019
November	167	177	344	411	4062	4473	716	642	1358	2030	8548	10578
December	196	216	412	451	3923	4374	868	731	1599	2294	8248	10542
TOTALS	2096	2281	4377	5426	47467	52893	9030	7689	16719	28156	101532	129688
												146407

Agency Service for Lancashire County Council

IN AREA OF TURTON URBAN DISTRICT COUNCIL:

Month	Patients Carried						Total Patients per m'th	Miles Travelled						
	Accident and Emergency			Other Cases				Accident and Emergency			Other Cases			
	Stretcher Cases	Sitting Cases	Total	Stretcher Cases	Sitting Cases	Total		Stretcher Cases	Sitting Cases	Total	Stretcher Cases	Sitting Cases	Total	
January	6	9	15	36	237	273	288	59	71	130	394	1831	2225	2355
February	10	6	16	46	192	238	254	100	51	151	516	1498	2014	2165
March	4	18	22	47	263	310	332	37	97	134	493	2093	2586	2720
April	12	12	24	33	254	287	311	114	79	193	343	1739	2082	2275
May	13	6	19	24	282	306	325	106	39	145	257	1977	2342	2379
June	12	14	26	46	248	294	320	116	98	214	467	1875	2342	2556
July	10	10	20	57	198	255	275	77	54	131	575	1536	2111	2245
August	7	15	22	47	270	317	339	84	100	184	428	2076	2504	2688
September	6	20	26	56	241	297	323	35	89	124	500	1819	2319	2443
October	10	13	23	41	261	302	325	75	91	166	386	1835	2221	2387
November	12	8	20	38	258	296	316	111	81	192	330	1687	2017	2209
December	11	7	18	32	248	280	298	93	61	154	307	1636	1943	2097
TOTALS	113	138	251	503	2952	3455	3706	1007	911	1918	4996	21602	26598	28516

Emergency Calls:

The response to emergency calls continues to be very satisfactory indeed. With the increasing demand for non-urgent removals and the now annual increase in demand for emergency ambulance service it is pleasing indeed to see the high standard being maintained.

Monthly Analysis of Cases - Bolton

Type of Case	Jan.	Feb	Mar	Apl.	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
Road Accidents	81	40	83	78	65	68	78	77	77	70	81	98	896
Home or Works Accidents	174	166	183	189	218	195	166	196	210	165	166	187	2215
Collapsed Conditions	117	115	107	97	97	118	104	108	85	121	97	130	1296
Discharges from H'pital	120	117	129	109	113	115	114	114	118	121	123	156	1449
Admissions to Hospital	405	375	338	332	314	289	275	312	271	375	361	332	3979
Foot Clinic	93	65	80	59	92	62	48	91	47	82	61	51	831
Geriatric Day Cases . .	687	595	624	541	661	695	711	788	763	809	870	754	8498
Transfers (Hospital to Hospital)	86	89	121	103	120	120	99	133	128	107	76	106	1288
Transfers (House to House)	7	5	7	6	4	2	6	5	6	6	6	10	70
Mental Cases	3	5	1	1	5	5	1	5	2	2	1	1	32
Psychiatric Day Cases	444	505	515	365	487	452	419	449	547	490	497	393	5563
Maternity Cases . . .	145	151	181	150	154	113	135	151	146	138	138	152	1754
Out-Patients	2414	2277	2632	2474	2743	2522	2092	2630	2626	2363	2358	2428	29559
TOTALS	4776	4505	5001	4504	5073	4756	4248	5059	5026	4849	4835	4798	57430

Turton Urban District

Type of Case	Jan.	Feb	Mar	Apl.	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
Road Accidents	4	1	9	6	10	5	10	8	17	9	6	10	95
Home or Works Accidents	5	8	12	14	8	13	6	12	8	12	12	2	112
Collapsed Conditions	6	7	1	4	1	8	4	2	1	2	2	6	44
Discharges from Hospital	9	10	6	11	10	8	8	12	13	7	11	9	114
Admissions to Hospital	29	37	25	37	24	29	32	34	29	23	30	26	355
Foot Clinic	—	—	—	—	—	—	—	—	—	—	—	—	—
Geriatric Day Cases . .	21	20	33	36	49	38	44	35	43	47	56	50	472
Transfers (Hospital to Hospital)	2	1	—	1	3	—	—	2	1	—	2	—	14
Transfers (House to House)	2	1	—	—	—	—	—	2	—	—	1	—	6
Mental Cases	—	—	—	—	—	2	—	—	—	—	—	—	2
Psychiatric Day Cases	1	—	—	—	—	—	1	—	1	2	1	—	6
Maternity Cases . . .	14	17	13	8	13	7	9	9	20	18	4	12	144
Out-Patients	196	154	234	194	210	209	161	220	190	206	192	181	2347
TOTALS:	289	256	333	311	328	320	276	336	323	326	317	296	3711

Patients carried 60 miles or more

(Included in above figures)

Type of Case	Jan.	Feb	Mar	Apl.	May	June	July	Aug.	Sept	Oct	Nov	Dec	Total Patients
Bolton Borough	—	1	—	2	—	5	1	1	1	2	1	1	15

Vehicle Strength at 31st December, 1966:

The number of vehicles in service has remained fairly constant for many years, and the increase in demand on the service has been mainly absorbed by the acquisition of dual-purpose vehicles. However, should this demand continue, consideration will have to be given to increase the vehicle establishment of the service.

It is again planned to replace one of the older sitting case only type of vehicle with a dual-purpose ambulance in the next financial year.

Make	H.P.	Reg. No.	Purchase Date	Total Mileage
AMBULANCES:				
Austin	16	MWH 100	29. 4.58	125,873
Austin	16	MWH 101	29. 4.58	134,471
Bedford	28	BWH 614B	2. 9.64	31,929
Bedford	28	EWB 868C	29.12.65	12,640
SITTING CASE AMBULANCES:				
Austin	16	VBH 376	4. 4.62	53,920
Morris	16	HWH 499	6. 4.55	129,203
Austin	16	PBH 30	24. 9.59	93,117
Morris	15	XWH 750	1.10.63	62,122
Ford	18	HBN 405D	11.10.66	3,581
DUAL-PURPOSE AMBULANCES:				
Bedford	28	BWH 613B	2. 7.64	31,950
Bedford	28	EWB 869C	16.12.65	13,152
Bedford	28	HBN 627D	20.11.66	842
SITTING CASE CAR:				
Austin	Diesel	TWH 746	24. 4.61	87,080

Accident and Insurance Claims:

During the year ambulance service vehicles were involved in only ten accidents involving insurance claims. These were only of a minor nature, and no ambulance driver was considered negligent.

Maintenance and Repair of Vehicles:

All Health Department vehicles continued to be maintained and repaired in the ambulance workshops. This is a very satisfactory arrangement, as it allows a maximum availability of all vehicles at all times. Difficulty in recruiting trained mechanical staff continues due to the demand for this type of labour in the area.

Ambulance Control Room:

The appointment in April of a female Control Room Assistant has undoubtedly proved most satisfactory in improving the efficiency of the control. The work load in this office has increased very considerably over the years and it became quite impracticable for one person to manage effectively.

The control continues as the essential link with the other Emergency Medical Services of the Borough outside normal working hours and at weekends.

Civil Defence:

Home Office Circular No. 1/1967 dated 31st January, 1967, on the re-organisation of the Civil Defence Corps declares that the Corps in future will not be divided into Sections which, of course, means that there is no longer an Ambulance and First Aid Section of the Corps.

Augmentation of the Ambulance Services will no longer be a function of the Civil Defence Corps. Plans are being considered by the Ministry of Health and guidance on this point will be issued later.

Three training ambulances and one dual-purpose vehicle (ambulance cum equipment carrier) are held on loan by Civil Defence from the Ministry of Health, and the Ministry will be notifying local authorities on necessary changes in vehicle holdings.

Dr. P. O. Nicholas, Deputy Medical Officer of Health, and Dr. J. L. Jackson, Senior Medical Officer in the department, gave first aid lectures during the past winter to 50 members of the Corps, assisted in the practical sessions by Mr. T. R. Walton, Mr. J. Stroud and Mr. F. Moore of the Corporation Ambulance Department.

PREVENTION OF ILLNESS, CARE AND AFTER-CARE

Health Education:

A healthy way of life is unattractive to many people - perhaps natural to none. It must be learned and therefore it must be taught.

Recognising the need to encourage the public to choose a healthy way of life, and realising that to do this required a dynamic programme involving all the arts of education that modern society demands, a male health visiting officer was appointed to devote his full time to the activities involving the promotion of health within the County Borough. This is a significant step which acknowledges the value of positive health both to the individual and the community.

ORGANISATION:

The implementation and development of the health education services involves a programme catering for all parts of man - physical, mental and social in all his situations - work, school, home and leisure. This of necessity involved active participation of all sections of the department and the use of a variety of media. As well as talks, film shows and discussions, we have engaged in poster campaigns, exhibitions and specialised clinics. Special emphasis has been placed on developing close co-operation of all Corporation Departments and voluntary bodies. Liaison with the press and radio has also been developed and has proved to be very valuable.

It is an essential function of the health education service to provide support to those engaged in health education and to disseminate information to the staff and the public in general. It is to this end that special emphasis has been laid on instituting a health information service and the production of audio-visual aids. Both these services are very time consuming and are being called upon continually and increasingly. The strain on the resources of this new venture is very great, revealing that serious thought must go into ways and means of meeting this very obvious need more effectively.

EDUCATIONAL ACTIVITIES:

The implementation of the clean air programme has involved the education of the public in a variety of ways. One month was devoted to a poster campaign on this subject and a special display was made for the Ambulance Service window by the Bolton College of Art. The public health inspectors continued in their personal and formal work in health education involving the broader aspects of environmental health.

The increasing interest of the public in mental health has led to the mental health officers carrying out an effective education programme in this field.

The work of the health visitor in health education has been outlined under the appropriate section.

Some items of special interest, including two "firsts", are as follows:

ANTI-SMOKING CLINIC:

An overwhelming response to the first "Five Day" Stop Smoking Clinic which the Corporation sponsored, was very gratifying. One hundred and thirty-eight clients enrolled and more than 90% achieved success by the end of the week. A follow up after 3 months revealed that this initial success dropped to an average of 44%. This result compared with the results of other types of clinic would indicate that it achieved well above average success.

ANTE-NATAL PARENTS' COURSE:

A short course for both expectant mothers and fathers has been successfully introduced for the first time in Bolton - previous film shows for this group had indicated a need for this as the change in modern family life includes more fully an active role for the father in bringing up his children. We are pleased that this service has been so well received by the public.

HOME SAFETY EXHIBITION:

The Christmas exhibition held in the foyer of the Central Library featured the Birdbrayne Family which humorously portrayed home accidents in a way which left a lasting impression on the public. It is estimated that at least 15,000 people saw this exhibition.

THE FUTURE:

The embryo for health education in the County Borough has been formed and before it lies a long and difficult period of development and expansion. That it is a valuable service there is no doubt for who can challenge the inestimable value of health? Who can deny the prevalence of health hazards in modern living? Health has to be learned - therefore it has to be taught.

Cervical Cytology and Cancer Screening Report:

The Cervical Cytology and Breast Cancer Screening Clinic started in the Civic Centre at the end of 1965 and developed during 1966 as the Pathology Department of the Bolton District General Hospital was able to accept more specimens. Initially 10 specimens were sent each week, but this was soon doubled and later in the year two sessions were held on Wednesdays producing about 40 smears. A total of 920 women were seen in 1966.

One Medical Officer attended each session and with the help of two nurses and a clerk about 12 patients were seen each hour. Two examination rooms and three changing rooms were in use. Clinical examination of the breasts and regional lymph nodes precedes the pelvic examination and cervical smear.

During 1966 the Service was brought to the notice of women in Bolton mainly by Health Visitors and General Practitioners. Patients who attended got their relatives and colleagues at work to attend in many instances. It is regretted that more women believed to be most at risk did not attend, namely, women who start raising families early, have many pregnancies, and especially if in the lower social groups. Because of the limited facilities of the Clinic preference was given to women over 35 years of age who had three or more pregnancies.

Number of women examined	920
Number of cervical malignancies found	5
Number of suspicious smears subsequently proved positive	1
Number of suspicious smears subsequently proved negative	1
Number of smears with abnormal cells for repeat after treatment	6
OTHER CONDITIONS:	
Trichomonas Infections	25
Monilia Infections	2
Uterine Fibroids	3
Cervical Polyi needing referral	3
Senile Vaginitis	2
Cervical erosion needing referral	4
Foreign bodies in vagina	2
Number of suspicious swellings found in the breasts	5
Number of swellings proved to be malignant ..	2
Other breast conditions referred for further investigation	3

It is intended that patients will have further cervical smear and breast examinations in three years' time.

The continued close co-operation with Dr. G. B. Manning and Dr. R. C. Woodcock, Consultant Pathologist of the Bolton and District General Hospital Management Committee is greatly appreciated.

Geriatric Advisory Clinic:

An Advisory Health Clinic for the Elderly was started at the Civic Centre in Bolton in June, 1966. Four patients are invited to attend, by appointment each Wednesday morning on the advice of Health Visitors, Welfare Officers and General Practitioners or on the suggestions of a patient who has attended previously. Patients may or may not be attending their general practitioner concurrently and all are ambulant.

A male and female Medical Officer attend the clinic on alternate weeks. Some husbands and wives attend on the same day but the proportion has been one male to six female patients with the following age distribution:

	Male	Female
Average Age	68	63
Age Range	56 - 75	50 - 83

A Health Visitor takes particulars, including marital status, present and previous employment. She measures and weighs the patient, tests the vision and urine. The Medical Officer then takes a full medical history and particulars; a note is made of the patient's attitude to increasing age. A full clinical examination is then made and a blood sample taken for haemoglobin estimation and, where necessary, for full blood count and other investigations e.g. blood urea and Wasserman Reaction.

Health Education then completes the interview. Diet is the most discussed topic either to correct deficiencies or to reduce weight with beneficial effect on breathlessness, bronchitis and arthritis. Patients are recommended to chiropody, ophthalmic and hearing aid services and referred to consultants where necessary. Women patients are invited to the Cervical Cytology and Cancer Screening Clinic. Disturbed sleep due to nocturnal frequency of micturition is a fairly common complaint dealt with. Patients are given advice about how to occupy their time, or, if over active and hypertensive, how to adjust their lives.

The following is a summary of the findings during the first six months of the Geriatric Advisory Clinic:

Total number of people who attended	14 men 73 women	}	87
No. found to be anaemic and referred to their General Practitioner			3
No. referred to G.P. for various reasons, e.g. hypertension . .			7
No. referred to Physiotherapist for breathing exercises or heat treatment			11
No. found to be overweight and give advice on diet			22
No. referred to an Optician for change of spectacles			9
No. referred to a Chiropodist			4
No. referred for cervical cytology			10

One man found to have Syphilis and was seen by Dr. Leeming and Dr. Silver.

One man was waiting for Part III accommodation, and on Dr. Swindell's recommendation his admission was expedited.

No abnormalities in the urine have been discovered.

Sources of Referral to the Clinic:

Health Visitor	36
General Practitioner	7
Welfare Department	3
Previous Patients	41

Despite a reluctance of patients to attend this clinic, especially among the elderly men, they are invariably appreciative when they do attend. The conditions discovered are usually incipient in onset e.g. anaemia, failing vision and hearing, raised blood pressure and the more obvious overweight condition. When reviewed, the majority have been able to take the advice given with advantage.

Although the complete interrogation and medical examination of the elderly patient is a slow process, usually something remediable can be found and subsequent complications prevented. The health, comfort and efficiency of the patient are improved and the knowledge that there is nothing seriously wrong has a great psychological value.

A great deal of work is done and time spent by the Health Visitors in selecting the right type of patient and impressing them with the fact that although they may feel well a health check-up could be helpful. Stimulating them to get to the clinic and then following up the cases are time consuming. It is felt, however, that many more old people in Bolton could benefit by the service given at this clinic and its usefulness extended.

Loan of Nursing Equipment:

Article	Number Available	No. issued during the year	No. in stock at 31st Dec. 1966
Bed Pans	165	170	6
Rubber Bed Pans	5	—	5
Air Rings	138	52	5
Tan Sad Invalid Chairs	51	21	12
Junior Invalid Chairs	7	1	1
Self-Propelled Chairs	3	1	—
Bed Rests	155	79	—
Bed Cradles	30	20	2
Single Beds	7	12	5
Iron Lifting Poles	7	1	1
” ” ” (with wheels)	3	1	—
Helping Hand	1	—	1
Cot — Senior	2	—	2
Cot — Junior	1	—	1
Mattresses — Sectional, Dunlopillo	1	1	2
” — Hair & Interior Spring	6	1	1
” — Dunlopillo	14	17	2
Cushion — Float-on-Air	1	—	—
Biscuit Mattresses	2	—	—
Mattress Covers — Cotton	11	—	7
” ” — Plastic	27	20	1
Pillows — Feather and Flock	15	—	9
” — Dunlopillo	1	—	—
Bedspreads	6	1	5
Blankets	19	4	9
Draw Sheets	1,709	1,032	376
Pillow Cases — Cotton	38	—	38
Pillow Cases — Plastic	8	—	4
Pyjama Jackets	132	6	17
Pyjama Trousers	3	—	3
Rubber and Plastic Sheets	543	207	—
Urinals	119	97	5
Fracture Boards	11	4	3
Chair Commodes	40	41	—
Sani-Chair — Self propelled	1	—	1
Crutches	22	2	21
Tripod Walking Sticks	13	5	2
Bonaped Walking Aid	1	—	—
Zimmer Frames	5	7	—
Telescopic Walking Aid	14	1	—
Pails (with lids)	72	83	21
Hydraulic Patient Hoist, Stand and Accessories	2	1	—

Total number of articles issued in		1966	..	1,888
" "	" "	1965	..	1,698
" "	" "	1964	..	1,850
" "	" "	1963	..	2,179
" "	" "	1962	..	1,970
" "	" "	1961	..	2,043
" "	" "	1960	..	1,757
" "	" "	1954	..	899

Convalescent Home Accommodation:

During the year there were 31 applications for convalescence for adults. All applicants were interviewed as to their suitability for convalescence by medical officers of the department.

All the applicants were accepted for periods of two weeks and of these, 23 were admitted to the Bolton and District Hospital Saturday Council's Homes at Blackpool and St. Annes-on-Sea. The remainder were sent to various other homes.

The Local Health Authority paid full fees for accommodation in all except three cases.

Chiropody:

In co-operation with the Old People's Welfare Council the Local Health Authority continued to provide a full chiropody service for the elderly, the physically handicapped and expectant mothers.

Details of the number of treatments during 1966 are given below, together with the figures since the inception of the service. The number of cases treated at home has increased considerably since the service began, the figure for 1966 showing a further increase over that of 1965. There was again an increase in the number of cases treated at the clinic and the average number of treatments per session rose from 9.5 in 1965 to 9.65 in 1966. The average period between treatments is now seven or eight weeks.

Month	Number of treatments given at clinic					No. of treatments given at home	Total clinic and home treatments
	Free			Paying	Total		
	Aged	Handi-capped	Expectant Mothers	Aged			
January	380	24	—	267	671	175	846
February	324	25	—	279	628	132	760
March	427	25	—	317	769	198	967
April	341	24	—	303	668	151	819
May	455	26	—	292	773	192	965
June	340	36	—	310	686	190	876
July	277	26	—	191	494	174	668
August	457	39	—	356	852	215	1,067
September	367	26	—	287	680	179	859
October	418	24	—	326	768	178	946
November	417	26	—	309	752	216	968
December	406	38	—	336	780	206	986
TOTALS: ..	4,609	339	—	3,573	8,521	2,206	10,727
1965	4,018	353	—	3,306	7,677	1,748	9,425
1964	4,485	356	2	3,857	8,700	1,762	10,462
1963	4,372	343	—	4,112	8,827	1,592	10,419
1962	3,969	338	1	4,147	8,455	1,279	9,734
1961	3,522	271	2	4,046	7,841	755	8,596
1960 (April - December) ..	1,753	199	1	3,247	5,200	333	5,533

During the year, 142 new patients were treated at the clinic and 181 new patients treated at home. At the end of the year there were 1,486 clinic patients and 369 domiciliary patients on the register.

My sincere thanks are due to the Old People's Welfare Council for operating the service for old people and to the Welfare Committee and their Chief Officer, Mr. G. Taylor, who have always been most helpful in allowing the clinic to continue in the Welfare Department premises. In order to release accommodation much needed by the Welfare Committee the clinic will be transferred in February, 1967 to the Health Department premises in the Civic Centre.

I should also like to thank Mrs. L. A. Crossley the Honorary Secretary of the Bolton District Branch of the Society of Chiropodists, and her colleagues, for their very willing assistance.

HOME HELP

The Central Office of Information, in the explanatory note for Home Help Organisers enclosed with their recent enquiry on the Home Help Service, states that "the Home Help Service is justifiably considered the keystone of the domiciliary welfare service". Local Authorities must welcome such comment from a Central Government Department.

By the provision of home helps, old people are enabled to remain in their own homes; when the mother of a family is ill at home, or in hospital, the provision of a home help often stabilises the family and allows children to remain in their own home; and, in the case of younger people, short periods of service to those discharged from hospital enables a hospital bed to be freed earlier than would otherwise be the case.

The Home Help Service has so developed that it now complements every statutory and voluntary agency in the health and welfare fields. Liaison and co-operation has increased as the service has become more widely known and it supports all engaged in the National Health Service. General practitioners, health visitors, mental health officers, public health inspectors, welfare officers, social security officers, hospital almoners, and district nurses have all become accustomed to requesting help for a variety of reasons.

The ever increasing number of cases makes it inevitable that cases frequently receive less service than is desirable.

Doubtless there is a good deal of preventive work which falls within the scope of the service, but present demand allows only for assistance in households where there is a real degree of ill-health or infirmity.

The chronic sick, aged and infirm sections of the population continue to be the largest group requiring assistance; they include the over 65's (classed as aged and infirm) and anyone under 65 who is a long term patient (classed as chronic sick). The maternity and under 65 short term cases show little variation.

The number of households receiving assistance during the year totalled 1,606, the highest number in the history of the service.

It is interesting to note that in 1918, Bolton was one of the only four Authorities in the country providing a Home Help Service, and in 1919, 300 working days of service were provided throughout the year, by 5 or 6 part-time home helps. Now it is in the region of 40,000 working days of service each year, by 230 home helps.

Eight hundred and ninety-one new applications were received, approximately 25% not being served; private arrangements were made in some cases, some went to stay with relatives, some were under the impression we were a domestic agency, and some refused to accept any help.

The administrative staff must assess the need, and where relatives are available, service is refused or restricted, in order that patients who are quite alone may receive service.

SOURCE OF APPLICATIONS (Expressed in percentages):

General Practitioners	21.4
Health Visitors	15.7
Self	13.3
Relatives	11.8
Hospital Almoners	9.3
Welfare Department	8.6
Ministry of Social Security	6.5
District Nurses	6.4
Friends	6.0
Mental Health Officers	0.3
Children's Department	0.5
Others	0.2
	<hr/> 100.0 <hr/>

The direct approach by the patient, relatives, and friends continues to be by far the largest section (approx. 30%). In many of these cases assistance from other agencies appeared necessary, and these were contacted.

Cases for whom help was provided during the past four years:

	1963	1964	1965	1966
Maternity	60	62	46	54
Tuberculosis	12	10	7	6
Chronic Sick, Aged and Infirm ..	1,305	1,305	1,408	1,482
Other cases	92	85	77	64
TOTALS ..	1,469	1,462	1,538	1,606

Payment for Service

The maximum charge for the service remained at 4/- per hour, which is under the local rate for domestic workers.

Summary of Payment for Service

	Free	Part Cost	Full Cost
Maternity	10	10	34
Tuberculosis	6	—	—
Chronic Sick	1,248	76	158
Other Cases	40	1	23
TOTALS	1,304	87	215

Night Attendant Service:

Twelve dangerously ill patients received 18 nights of service.

Training:

The six months training course for home helps has continued each Wednesday afternoon. Half the lectures are given by senior officers of the Health Department, Welfare Department, Social Security and other agencies concerned with service in the community; the other half by the staff of the Women's College of Domestic Arts and Crafts, and include practical training in housekeeping, invalid diets, nutrition and budgeting.

Staff:

There is still keen competition with local firms for part-time staff, who often work in clean airy offices, in contrast to some of the depressing conditions in sub-standard housing, with difficult and demanding patients, and constant travelling in all weathers.

The Norwegian Home Help Service invited three home helps from Britain to their National Conference in Oslo, and Bolton was fortunate in securing one invitation. The home help was given leave of absence and had a most interesting and instructive time.

The administrative staff remained at the same level as it has done since 1959, with organiser, two assistant organisers, two case workers and a clerk. A home help who had twenty-two years service was appointed as a case worker. She is naturally well informed on the practical side of the work, and the experiment appears to be most successful.

During the year the organiser has lectured to various associations, mostly concerned with the elderly; and once again a third year student in Social Science from Manchester University, has attended for one term.

Medical Examinations:

An agency which provides a service of such a personal nature as the Home Help Service must be reliable. The very fact that they need to use this service emphasises its importance in the domestic life of the recipients.

All entrants to the Home Help Section are medically examined to ensure that they are medically fit for the appointment and that as far as possible the work will not have a deleterious effect on the health and well being of the home help herself, who also has her own domestic duties to discharge.

An over abundance of onerous domestic labour done by women in poor health is not work but drudgery. A fit and contented person is an essential prerequisite in the provision of the best service possible.

A medical examination is made in the case of home helps where there has been a poor record with sickness absenteeism, so that these women do not feel obliged to continue in work for which they are unsuitable. There were 29 such medical examinations.

Total number of home helps examined for sickness payment scheme during 1966 was 151.

Total found to be unfit	11
-------------------------	----	----	----	----	----	----

REASONS FOR UNFITNESS:

Hypertension	..	..	..	..	..	..	5
Epilepsy	..	..	..	..	..	..	1
Heart conditions	..	..	..	..	..	..	3
Varicose veins with poor hearing	..	..	..	..	..	..	1
Depression	..	..	..	..	..	..	1

MENTAL HEALTH

The subnormal children attending the Junior Training Centre were able to move from the Cotton Street premises to the new purpose built centre, Firwood, Crompton Way in November, thus continuing the build up of facilities provided by the Council to promote the care of the mentally disordered in the community. The Adult Centre at Cotton Street and the two hostels "Greenmount" and "Park House" were fully occupied during the year, and there is now ample evidence for planning further hostels. Casework suffered through the loss of qualified and experienced mental welfare officers and although the quantity of work was maintained the quality inevitably suffered through the need to recruit inexperienced officers.

Staff:

The acute shortage of qualified personnel, particularly in the field of social work and teaching the mentally handicapped, continues to hamper the full development of community services and a serious situation developed at one stage of the year when only the Chief Mental Health Officer and one Senior Mental Welfare Officer remained on the staff. One very experienced officer left for a more remunerative post outside local government but more significant was the departure of an officer trained and qualified at the cost in time and money to this authority, an officer who moved to another field of social work for the same salary but less onerous working conditions than those of a mental welfare officer. Three new officers were recruited, all with some knowledge of mental disorder but unqualified as social workers.

In recruiting staff for the extended accommodation in the new Junior Training Centre it was impossible to recruit qualified staff.

One social worker and one trainee teacher were away on two year full-time courses and it will take several years to secure a fully qualified staff in this way. When further staff increase or replacement is necessary consideration should be given to the methods available of making the posts attractive to qualified personnel.

The use of unqualified staff throws undue strain on the few qualified staff who have to support them and seriously detracts from the quality of the service for those in need.

The staff on 31st December, 1966 was:

	1 Chief Mental Health Officer	
SOCIAL WORKERS	{	1 Senior Mental Welfare Officer 4 Mental Welfare Officers (un-qualified) 2 Welfare Assistants
JUNIOR TRAINING CENTRE	{	1 Supervisor 5 Assistant Supervisors (4 unqualified) 1 Trainee Assistant Supervisor 3 Guide Assistants 1 Caretaker/driver Part-time cooks & domestic staff
ADULT TRAINING CENTRE	{	1 Supervisor 1 Senior Instructor 4 Instructors 2 Guide Assistants Part-time cook & domestic staff

GREENMOUNT HOUSE

- 1 Superintendent
- 1 Matron
- 1 Assistant Matron
- 7 Day Attendants
- 5 Evening and night attendants
(12 part-time)
- 1 Chef
- 1 Assistant Chef
- 3 Part-time domestics

PARK HOUSE

- 1 Superintendent
- 1 Deputy Superintendent
- 2 Attendants (part-time equivalent)
- 1 Cook
- Part-time cook and domestics

Liaison:

The comprehensive district psychiatric service for the mentally ill was maintained by continued close relationship with Dr. J. T. Leyberg, Consultant Psychiatrist at Bolton District General Hospital, and his staff. Regular meetings between mental welfare officers and medical staff to discuss casework and administrative problems are essential, and joint home visits and domiciliary service from the Consultants help to provide the service required to maintain patients at home and support their families.

Monthly clinics were held in the Health Department by a Consultant in Mental Subnormality, from Brockhall Hospital and the practical help and advice resulting from this clinic was greatly appreciated by patients and local authority staff.

Co-operation with general practitioners remains good considering the pressure to which they and the social workers are at present subject.

Other statutory and voluntary organisations are consulted as necessary to assist the welfare of individual cases.

Mental Illness

Hospital Admissions:

Total Number of Bolton Residents admitted to Psychiatric Hospitals

Method of Admission	Under 65 years		65 years and over		Total
	Male	Female	Male	Female	
Mental Health Act, 1959					
Informal	100	116	19	58	293
Section 25	30	44	5	17	96
Section 26	—	1	—	—	1
Section 29	16	6	—	1	23
Section 60	3	—	—	—	3
TOTALS	149	167	24	76	416

The total number of patients admitted to hospital increased by 10% which is within the variation up or down experienced over the last few years. The percentage of informal admissions was constant at 70% and less than 3% of all admissions were to hospitals other than the Bolton District General Hospital. Twenty three patients had to be dealt with as acute emergencies and hospital orders were made on three men by the Bolton Borough Courts.

Bolton residents received a complete psychiatric service from their own authority and local hospitals which is beneficial for the patient and family, but it appears inevitable that with a smaller hospital unit than a large mental hospital there are times when pressure on the available beds becomes acute and some patients have to wait for admission.

Cases referred to Health Department for investigation:

	Under 65 years		65 years and over		Total
	Male	Female	Male	Female	
REPORTED BY—					
Medical Practitioners	35	86	18	40	179
Relatives	33	42	6	19	100
Police	20	8	2	3	33
Consultants and Hospitals	23	24	6	18	71
Others	38	66	7	38	149
TOTALS	149	226	39	118	532
DISPOSAL—					
ADMITTED TO HOSPITAL—					
Informally	29	45	6	18	98
Under Section 25 Mental Health Act ..	30	44	5	17	96
Under Section 26 Mental Health Act ..	—	1	—	—	1
Under Section 29 Mental Health Act ..	16	6	—	1	23
Under Section 60 Mental Health Act ..	3	—	—	—	3
TOTAL HOSPITAL ADMISSIONS	78	96	11	36	221
Referred for Psychiatric Opinion	27	43	5	13	88
Placed under Community Care	23	62	15	39	139
Died	—	1	—	2	3
No further action required by Mental Health Service	21	24	8	28	81
TOTALS	149	226	39	118	532

The number of referrals to the department continues to increase and was 27% higher than 1965. The increase applied equally to the under 65 years of age group, both men and women, and is the anticipated increase due to the maintenance of a higher proportion of mentally ill persons in the community giving rise to more "panic" calls from those affected by their behaviour. The largest increase in referrals was from relations and other social agencies whilst referrals from the medical profession showed very little increase. The increase in the over 65 years age group was entirely in the female group.

A higher proportion continue to be dealt with by social work in the community and, in spite of the shortage of social workers during the year, more visits were paid. An increase of visiting with reduced staff can, however, be misleading as only "first aid" may be given instead of the extended support which patients and their families may require and the object of the department must be a full complement of qualified staff.

	1965	1966
Visits to investigate referrals	503	572
Community Care Visits	3,320	3,860

Psychiatric Social Club:

The club continues to function under the chairmanship of one of the mental welfare officers and a committee of members, but attendance has fallen and the club is now mainly concerned with providing social activities for chronic patients. This is in itself a very useful service as many members would otherwise be deprived of all social contact and the Club will continue to function at this level until social and medical staff have sufficient time to devote to creating a more therapeutic club for transient patients.

Greenmount House:

The established high standard of care was maintained throughout the year and the hostel was full with a waiting list of 11 men and 17 women on 31st December.

The two short term care beds were extensively used and it is considered that more short term care beds could provide relief for families at an earlier stage and thus considerably delay or even prevent requests for permanent care in many instances. With this in mind consideration was given in conjunction with the Consultant Psychiatrist to creating more short stay beds as discharges occurred, but the urgency of need of those on the waiting list has forestalled this intention. Sixteen persons received short term care for periods of from one week to three months, several being admitted on more than one occasion.

Discharges during the year were:	Male	Female	Total
To Psychiatric Hospital	1	11	12
To Part III Accommodation	—	4	4
Died	2	3	5
To Relatives	1	2	3
	4	20	24

Admissions were:

From Psychiatric Hospital	3	12	15
From Home	2	4	6
From Part III Accommodation	—	3	3
	5	19	24

The above figures illustrate the pressure on all types of accommodation dealing with the aged, as discharges to hospital and part III accommodation are usually effected on an exchange basis.

Experience at Greenmount has now proved the excellent nature of this type of accommodation for elderly mentally disordered persons and an article on the hostel under the joint authorship of the Deputy Medical Officer of Health and the Chief Mental Health Officer was published in the British Medical Journal 22nd October, 1966 and requests for copies were received from many other authorities at home and several overseas countries.

A senior welfare officer of the Ministry of Health spent 24 hours as a resident, and commented on the excellence of the structure, the running of the hostel, and the general care of the residents. The homely atmosphere was always evident and the residents were kept in touch with the community as much as possible by unrestricted visiting of friends and relatives, and in particular by regular visits from church organisations, the senior scholars of Bolton School, and other organisations. Several residents were able to go out unescorted, others were taken out for short periods by friends and relatives and one resident still manages to do a part-time cleaning job for a few hours a week. Other residents were taken out shopping by the staff.

All residents were kept occupied as far as possible in the same way they would be occupied if still living at home, thus the women help with domestic work and carry on with their knitting and sewing whilst the men help with the maintenance of the grounds, but also do some domestic work.

Mental Subnormality and Severe Subnormality

Community Care:

Home visiting increased during the year and support for parents in need is adequate, but it will still be necessary to increase this work to ensure that problems are quickly diagnosed and dealt with. Home visits were made where necessary by one of the medical officers.

Requests for visits by the hospital decreased and are now minimal, an indication of the reduction of high grade patients in hospital and the informal status of the majority, thus minimising requests for information on home conditions where further detention has to be considered.

New cases reported were similar to the previous year but the number of children referred under Section 57 of the Education Act, 1944, as unsuitable for education in schools seems very low.

A welcome improvement was the admission of severely subnormal children to hospital from the waiting list and, although new cases were added to the list during the year, the list has at last shown signs of gradual reduction. The monthly clinic held in the Department by a Consultant from Brockhall Hospital again proved invaluable in assessing the need of the patient and family for long or short term care and for advice on medication, but the value of this service to parents by way of advice and the satisfaction they gain from the knowledge that a Consultant is taking an interest in their case cannot be too highly praised.

Home Visits made by Mental Welfare Officers were:

	1965	1966
Community Care	987	1,268
At request of Hospitals	183	76

Mental Health Act, 1959
Cases Referred to Health Department for Investigation

	MALE	FEMALE	TOTAL
NEW CASES REPORTED BY:			
Local Education Authority			
Section 57 Education Act, 1944	3	—	3
E.S.N. School Leavers	12	4	16
Others	10	4	14
CASES PREVIOUSLY REFERRED REQUIRING			
ACTION	3	3	6
TOTALS ..	28	11	39

ACTION TAKEN:

Admitted to Hospital:

Informally	4	2	6
Under Section 26 Mental Health Act, 1959	1	1	2
Total Hospital Admissions	5	3	8
Admitted to Junior Training Centre ..	6	3	9
Admitted to Adult Training Centre ..	1	—	1
Community Care	6	—	6
No Further Action at Present	10	5	15
TOTALS ..	28	11	39

Number of Subnormal and Severely Subnormal Persons receiving care on the 31st December, 1966:

	MALE	FEMALE	TOTAL
In Hospitals	84	87	171
Community Care	176	165	341
TOTALS ..	250	252	512

Classification of Severely Subnormal Persons awaiting Hospital Care on 31st December, 1966

		Under 16 years		Over 16 years		Total
		Male	Female	Male	Female	
IN URGENT NEED:						
Cot and chair cases		2	1	—	—	3
Ambulant		2	1	—	—	3
NOT IN URGENT NEED:						
Cot and chair cases		1	2	—	1	4
Ambulant		1	—	—	—	1
TOTALS		6	4	—	1	11

Junior Training Centre:

The new purpose built centre on Crompton Way, to be known as the Firwood Centre, was completed according to schedule and the staff and children were able to move into the premises at the beginning of November, and have the advantage of a warm building before the cold weather.

The number on register at 31st December was 55 the lowest figure for some years. This is due to the low number of cases referred by the Local Education Authority. During the five years 1960 to 1964 57 children were referred but during 1965 and 1966 only eight children were referred. There is no indication of any reduction in the birth rate of subnormal children.

A high standard of educational and social training was maintained in the old building but both staff and children will benefit from the additional classrooms and the light and spacious training areas in the new building.

Training and social activities were well supported by other organisations both by monetary gifts and practical assistance, especially the senior pupils of Canon Slade Grammar School who attend weekly to assist in the training and included some of the Centre children in a special dramatic performance presented in the Parish Church.

Regular medical inspections were carried out and a satisfactory standard of hygiene maintained.

Special Care Unit:

The Unit continued in the Adult Centre premises until the end of the year, but removed to the Firwood Centre for 1967. Twelve children were in regular attendance and no more can be carried by existing transport. A new vehicle has been ordered and should be ready early in 1967 and this should enable the five children awaiting admission to be catered for.

Training consisted mainly of exercises advised by the Physiotherapist who holds regular weekly sessions, but most of the children attending require constant nursing care.

Adult Training Centre:

There were 74 trainees on the register on 31st December and although further trainees were placed in employment during the year, others lost their jobs through the closure of mills and the general shortage of jobs in the town.

The main work of the Centre was again the production of its own saleable commodities such as packaged firewood, carrier bags, velvet cushions, small towels, face clothes etc., and maintenance of grounds in other Health Department premises. Efforts to secure contract work proved unsuccessful, the type of work that was offered being either too difficult or uneconomical.

After a period of instruction by nursing staff of the department, the Centre has taken over the packaging of dressing packs prior to sterilisation for use by the district nurses.

Recreational and social training included the monthly evening club and a week's holiday in a hotel at St. Annes-on-Sea.

Park House:

This hostel for mentally subnormal young men and women was fully occupied during the year and in view of the lack of demand for short term care this bed on the male side was filled and on 31st December there were 11 males and 10 females resident and a waiting list of five males. Three male and 2 female residents were in full-time employment, the remainder attending daily at the Adult Training Centre.

The hostel was well conducted throughout the year and the residents have settled very well in what they now regard as their home. Efforts were made to get two of the working males into lodgings but they did not want to leave the hostel and became so upset that the attempt was abandoned.

Recreational activities in the hostel are rather limited owing to lack of space but a good supply of indoor games was made available by a generous grant from the Bolton Society for the Mentally Handicapped.

PART III

CONTROL OF INFECTIOUS DISEASES

Notifiable Infectious Diseases

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence:

The following summary gives the number of cases of notifiable infectious diseases, other than tuberculosis.

Disease	Total Cases Notified
Anthrax	—
Diphtheria	—
Dysentery	136
Acute Encephalitis	—
Enteric Fever (including Paratyphoid)	—
Erysipelas	2
Malaria	—
Measles	1,421
Meningococcal Infection	1
Ophthalmia Neonatorum	1
Pneumonia—	
Acute Primary	33
Acute Influenzal	—
Acute Poliomyelitis—	
Paralytic	—
Non-Paralytic	—
Puerperal Pyrexia	2
Scarlet Fever	242
Smallpox	—
Whooping Cough	95
Food Poisoning	31

The following table gives the number of notifications of notifiable diseases after correction of diagnosis, during each of the last ten years.

Disease	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
§Anthrax	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—
Dysentery	167	187	237	509	229	331	97	94	125	136
Acute Encephalitis	2	1	—	1	—	—	—	—	—	—
Enteric Fever (including Paratyphoid)	—	—	6	1	1	2	1	—	—	—
Erysipelas	22	21	19	7	10	3	10	6	4	—
Malaria	—	—	1	1	1	1	1	—	—	—
Measles	2793	111	1797	1058	2708	576	2193	973	1591	1419
Meningococcal Infection	7	1	2	4	1	—	—	—	2	1
Ophthalmia Neonatorum	4	2	—	—	—	1	1	—	—	1
Pneumonia										
Acute Primary	153	136	103	79	79	65	81	37	27	35
Acute Influenzal	151	19	74	4	63	30	16	2	2	—
Acute Poliomyelitis										
Paralytic	4	3	—	1	15	1	1	2	—	—
Non-Paralytic	12	3	3	—	10	—	1	—	—	—
Puerperal Pyrexia	6	4	3	2	1	2	1	3	—	2
Scarlet Fever	131	278	262	186	89	59	66	58	156	242
Smallpox	—	—	—	—	—	—	—	—	—	—
Whooping Cough	73	40	100	179	147	2	55	142	26	95
Food Poisoning	215	150	181	59	57	66	62	41	38	31

§Notifiable from 1st December, 1960.

Deaths from Infectious Diseases, 1957-1966 inclusive:

Disease	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Diphtheria	-	-	-	-	-	-	-	-	-	-
Dysentery	-	-	-	-	-	-	-	-	-	-
Diarrhoea and Enteritis under 2 years of age ..	-	-	-	1	1	1	3	2	-	2
Acute Encephalitis	-	-	-	-	-	-	-	-	1	1
Enteric Fever (including Paratyphoid)	-	-	-	-	-	-	-	-	-	-
Erysipelas	-	-	-	-	-	-	-	-	-	-
Malaria	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-
Meningococcal Infection ..	-	-	-	-	1	1	-	1	1	1
Ophthalmia Neonatorum ..	-	-	-	-	-	-	-	-	-	-
All forms of Pneumonia ..	127	92	107	110	114	122	146	90	115	134
including—										
Acute Primary Pneumonia ..	27	25	12	18	14	23	19	11	15	21
Acute Influenzal „ ..	17	2	7	6	31	15	5	3	-	3
Acute Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Puerperal Pyrexia	-	-	-	-	-	-	-	-	-	-
Scarlet Fever	-	-	-	-	-	-	-	-	-	-
Smallpox	-	-	-	-	-	-	-	-	-	-
Whooping Cough	-	-	-	-	-	-	-	-	-	-
Food Poisoning	-	-	-	-	-	-	-	-	-	-

Diphtheria:

Once again during 1966 there has been no case of diphtheria notified. This is the eleventh successive year in which the Borough has been free of what was once a terrible scourge. However, the immunisation campaign must continue and the diphtheria immunisation figure for children born in 1965 and immunised in 1966 was 63% whereas the figure for England and Wales is 73%. Bolton's immunisation figure is still too low. The health visitors are continuing to carry out immunisations in the home when mothers have failed to bring their children to the family doctor or to the local clinic doctor for diphtheria protection. However, we are still not protecting all the children in infancy, and waiting until school age introduces a hazard in that there is a small group of the child population where diphtheria can begin.

Dysentery:

This is a problem which continues to be with us - during 1966 there were 136 notified cases compared with 125 in 1965 and 94 in 1964. Most of these cases in 1966 were sporadic but there was one small outbreak in a day nursery. This was quickly brought under control by exclusion and treatment of children carrying and affected with the germ and rigorous hygiene precautions in the nursery. However, outbreaks in day nurseries are always a concern when young babies are involved. There is the added need to avoid closing day nurseries when there are so many working mothers - there are about 2,000,000 mothers who are working in England and Wales who have children under school age - often the mother must work to support the child. The importance of diarrhoeal diseases in babies and children under 2 years is emphasised by the fact that during 1966 two children died from these complaints.

Acute Encephalitis:

As in 1965, there was one death from encephalitis.

Enteric Fever:

No cases were notified.

Measles:

There were 1,419 cases notified during the year, a slight fall in comparison with the 1,591 cases in 1965. Whereas in that year most cases occurred in the first quarter of the year, in 1966 there were 754 measles cases notified in the last quarter of the year. There were no deaths from measles. The anti-measles vaccine has not been used in the Borough of Bolton.

Pneumonia:

There were 134 deaths at all ages from the various forms of pneumonia compared with 115 in the previous year 1965. Most of these deaths occurred in the first four months of the year when the weather was more severe than at the end of 1966 when the winter weather was more mild.

Poliomyelitis:

Once again there were no cases of poliomyelitis. As long as there is a high protection rate of the population with Sabin vaccine it is likely that in the next generation we shall not see the crippling deformities that this disease has caused in the past. In 1966, 63% of infants received Sabin vaccine compared with a figure of 68% in England and Wales. Thus, unfortunately, there still remains in this town and in the whole country, a proportion of children unprotected. Parents cannot afford to deny this protection to their families.

Food Poisoning:

There were 31 cases of food poisoning compared with 38 in the previous year. These notified cases were mainly in three small outbreaks. The usual symptoms were abdominal pain, diarrhoea and vomiting. No bacterial organisms were isolated and it is assumed a virus was involved. Contributory factors were, in one outbreak, animals in the kitchen and in another, the unsatisfactory condition of the canteen where food was prepared. The responsibility for the condition of the kitchen did not seem to be that of either the outside catering company or the employing authority. If outbreaks of food poisoning are to be avoided there must be maximum hygienic precautions in the kitchen and it must be clearly understood who is responsible for ensuring this hygiene.

Whooping Cough:

There were 95 notified cases in 1966, nearly four times the number notified in 1965. There were fortunately no deaths from this infection but whooping cough protection in the first few months of life is important to infants to minimise the severity of any attack of whooping cough and thus to prevent lung and structural chest damage in later years.

Scarlet Fever:

There were 242 notified cases of scarlet fever in 1966 compared with 156 in 1965. One hundred and fifteen of the cases in 1966 occurred in the first quarter of the year. The scarlet fever was a mild form of the disease and though the character of the streptococcus haemolyticus has changed from the severe infection of thirty years ago and we do not see serious complications of the infection as previously, the number of mild cases demonstrates that the disease needs continued observation.

General Administration of the Control of Infectious Diseases:

Public health inspectors carried out 273 visits, and health visitors 376 visits, to make enquiries concerning infectious diseases.

The number of pathological specimens sent for examination to the Department of Pathology at the Bolton Royal Infirmary was 1,232. The types of specimens examined, and the results obtained, are shown in the following table:

Type of Specimen	Pathogenic Organism Found	No. of Specimens
Faeces	Sh. Sonnei	99
	Salmonella typhimurium	14
	Salmonella Para. B	4
	Negative results	1,100
	TOTAL	1,217
Ear, Nose and Throat Swabs	.. .. .	15
	GRAND TOTAL ..	1,232

A notice under the Public Health (Infectious Diseases) Regulations, 1953 was served upon one person who was proved to be a carrier of infectious disease and who was a food handler. This person was required to do no further work in food premises until proved to be free from infection. The total amount of compensation paid was £23 15s. 10d., which included a claim from the above and one from the previous year.

The following table shows the number of persons to whom special attention was directed in view of the fact that their occupation involved a higher risk of infection to others.

Category	Examinations for	
	Sonne Dysentery	Other Intestinal Infections
FOOD HANDLERS		
Positive	7	9
Negative	22	16
NURSERY STAFF		
Positive	—	—
Negative	3	3
NURSING AND HOSPITAL STAFF		
Positive	—	—
Negative	6	3
SCHOOL STAFF		
Positive	—	—
Negative	—	4
HOME HELPS		
Positive	—	—
Negative	—	7
TOTALS ..	38	42

Certificates were given in accordance with the authority given to the Medical Officer of Health under the Ministry of Health Circular 115/48 for the purpose of claiming National Insurance sickness payments in respect of two carriers of infectious disease who, because of the nature of their employment, were in a position to spread infection.

I wish to thank the staff of the Pathological Laboratory at the Bolton Royal Infirmary for their help in examining specimens and in the interpretation of the findings.

TUBERCULOSIS

Dr. John Mitchell, Consultant Physician, has kindly supplied the following information.

Notifications:

AGE AND SEX DISTRIBUTION OF NOTIFIED CASES:

Respiratory Tuberculosis

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males	-	-	-	-	-	1	1	8*	2	6	5	3	-	26
Females .. .	-	-	-	-	-	1	3	5*	4	-	1	1	-	15
TOTALS .. .	-	-	-	-	-	2	4	13	6	6	6	4	-	41

Non-Respiratory Tuberculosis

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males	-	-	-	-	-	-	1	2*	1	-	-	-	-	4
Females .. .	-	-	-	-	-	1	-	2*	1	-	-	-	-	4
TOTALS .. .	-	-	-	-	-	1	1	4	2	-	-	-	-	8

* One male notified as respiratory and non-respiratory T.B.

* Two females notified as respiratory and non-respiratory T.B.

The number of cases on the Tuberculosis Register at the end of the year was 199.

	MEN	WOMEN	CHILDREN	TOTAL
Respiratory Tuberculosis ..	101	68	6	175
Non-Respiratory Tuberculosis	15	6	3	24

Deaths:

Respiratory Tuberculosis

Age Periods	0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	Total (all ages)
Males	1	-	-	-	-	-	-	1	-	1	-	1	1	5
Females .. .	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS .. .	1	-	-	-	-	-	-	1	-	1	-	1	1	5

Non-Respiratory Tuberculosis

There was 1 (male) non-pulmonary notification after death.

Summary of the Work of the Chest Clinic:

	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
No. of new cases notified	90	101	89	63	60	82	62	57	52	49	46
No. of deaths	16	14	16	10	10	13	8	10	13	12	6
No. of attendances of new cases	1,624	1,722	1,682	1,395	1,223	1,082	1,126	1,262	1,175	1,013	1,061
No. of cases referred from Mass Miniature Radiography Units	20	18	30	235	119	105	176	242	208	108	134
B.C.G. Vaccinations	125	96	129	151	179	129	121	145	127	85	86
Total attendances at clinic	6,510	5,674	5,078	4,328	3,679	3,302	3,404	3,552	3,337	2,770	2,594
No. of contacts examined	749	689	966	606	608	447	416	529	413	338	444

General Comment:

There was 46 new cases of tuberculosis notified during 1966 - 3 less than last year.

Six patients died of tuberculosis during the year.

There are now 3 patients (2 males and 1 female) with persistently positive sputa.

Care and After-Care of Patients Suffering from Tuberculosis:

This duty was again carried out jointly by the Health Department and Chest Clinic staff, in close co-operation as in previous years.

AFTER-CARE PANEL:

Six meetings were held during the year. The problems mainly concerned re-housing on the grounds of tuberculosis, and 6 recommendations were made, of which 2 had been rehoused at the end of the year.

Some patients were referred to the Ministry of Social Security for financial assistance.

OTHER AFTER-CARE ACTIVITIES:

The Home Nursing Service undertook the care of 15 pulmonary cases, and 11 non-pulmonary cases. The total treatments given were 1,730, many of which consisted of injections of Streptomycin either in the home or at the Health Department. There were 13 patients on the books on 1st January, 1966 and 12 on 1st January, 1967.

The Home Help Section paid visits to and attended to the needs of patients during 1966.

During the year, no children were admitted to nurseries while their parents underwent treatment in hospital.

HEALTH VISITOR:

There are now 2 part-time health visitors, working with the tuberculosis health visitor. They paid 265 visits during the year to homes. In addition, clinic sessions were assisted by other health visitors and clinic nurses for most of the sessions as required. The health visitor supervises home conditions and advises on treatment.

B.C.G. Vaccination:

This protection against infection was offered to certain contacts, mostly children and especially babies. During the year there were 213 skin tests performed in the Chest Clinic in this connection and 86 vaccinations with B.C.G. were given to babies and older children.

Contact Clinics:

Special evening clinics are held monthly or two-monthly as necessary, at which contacts of known cases of tuberculosis come to the clinic for X-ray and examination by the doctor.

During the year, 444 individuals were examined and 7 found to require treatment, but close observation was required in several other cases.

SCHOOL CHILDREN WITH POSITIVE TUBERCULIN TESTS:

Following Ministry of Health Circular of 18th February, 1960, recommending observation of school leavers found to have strongly positive tuberculin tests, a weekly session was continued. As these tests indicate infection which may be recent and perhaps likely to develop, these children are examined and X-rayed and where possible their close contacts also.

As no cases requiring treatment have been discovered for 4 years, during which time 64 children have been examined and X-rayed, it was considered adequate to repeat the X-ray once only (in 6 months after the first examination and X-ray).

During the year a number of children contacts of known cases (mostly in Indian and Pakistani families) were found to have positive skin test, and some with early chest lesions. These were referred to Dr. Walter Dickson for observation, and several were put on drug treatment in hospital or as out-patients at Bolton District General Hospital.

Incidence of Tuberculosis in Immigrants in Bolton during 1966:

NOTIFICATION:

During the year, out of a total of 46 patients notified, 22 were either Pakistani or Indian. Three of these were non-respiratory (1 T.B. glands; 1 T.B. tibia; 1 T.B. lumbar spine). In addition three patients were notified as respiratory combined with non-respiratory tuberculosis (2 T.B. lungs/glands; 1 T.B. adenitis).

Although no accurate figures are available, the immigrant population in Bolton is estimated at about 3,000.

The numbers dealt with at the evening Contact Clinics as stated above, increased from 342 to 444. This was mainly due to the increasing numbers of Indian and Pakistani cases of tuberculosis, many with large numbers of contacts, also to the fact that general practitioners have been asked to refer immigrants for X-rays of chest to these Contact Clinics.

REFERENCE FROM GENERAL PRACTITIONERS:

Doctors are now asked to refer recently arrived immigrants for X-ray at the Chest Clinic, in the absence of symptoms. These are given appointments for the Contact Clinics held in the evenings. One hundred and thirty were given appointments (some several times), and 72 were X-rayed in this way. Three cases of tuberculosis were found among these though some were kept under observation with doubtful lesions or quiescent lesions, for a period.

CHEST CLINIC SESSIONS:

These investigate patients, including immigrants, referred by practitioners on account of symptoms, in the usual way. Most of the notifications referred to above were discovered in this way and treated in Wilkinson Hospital.

SUMMARY:

As far as can be ascertained, the incidence of tuberculosis among immigrants is much higher than in Boltonians, having occurred in 1966 at the rate of about 0.55 per cent, or 1 in 182 approximately.

Study of the known cases suggests a high susceptibility, the disease tending to spread slowly or even rapidly, occasionally in a fulminating manner. Quite a number of healed lesions have, however, been observed, and some have been noted to break down. They respond quickly to treatment, the gland cases rather slowly, as is the case with Boltonians. Surveys are hedged with difficulties such as language problems, frequent changes of address and defaulting. The above methods are only slowly covering the immigrants, and there is a strong case for X-ray facilities as a routine, even compulsorily, for all new entrants. Owing, however, to the frequently very long incubation period in this disease, the customary methods of case findings must be continued and intensified.

It is apparent that the normal machinery for case finding and treatment of cases of tuberculosis in Bolton absorbs the immigrants with ease, but requires intensification to be fully effective.

B.C.G. Vaccination of School Children and Students:

School children of twelve years of age and over are offered B.C.G. vaccination with freeze dried vaccine. Their suitability for this procedure is determined by the absence of a local reaction in the Heaf gun multiple punctive skin test. Those with a strongly positive local reaction are investigated further by X-ray examination.

Adolescent children in the classroom situation provide susceptible subjects and an easy means of dissemination of virulent organism such as the tubercle bacillus. B.C.G. vaccination by increasing the child resistance and in effect reducing the possibility of the presence of the tubercle bacillus is a major preventive measure in the control of tuberculosis.

It will be noted in this year's figures only 9.84% of the young people tested had a positive reaction, however one year's figures may not necessarily denote the true trend.

As is known, immigrants to this country show a high incidence of pulmonary tuberculosis. There are two possible reasons; firstly, that they are infected before they arrive here; and secondly that they are specially susceptible and develop tuberculosis when exposed to infection in this country. With the interests and needs of immigrant children in mind and with agreement reached at a meeting of the Bolton Commonwealth Friendship Council, arrangements are now in hand to enable all immigrant children to be tested for tuberculosis and, if necessary, vaccinated against it.

Total No. of consents received	..	..	..	..	1,960
No. of children skin tested	..	..	..	..	1,928
(No. absent for skin test)	..	..	..	..	32
No. found positive	..	..	..	..	181

Positive reaction - 113

Strongly positive - 68

No. found negative	..	..	..	..	1,658
No. given B.C.G.	..	..	..	..	1,658
No. absent for reading	..	..	..	..	89

TOTAL NO. OF CHILDREN	NO. POSITIVE	% POSITIVE
1,839	181	9.84

Mass Miniature Radiography Survey in Bolton:

I am indebted to Mr. N. Hall, the Organising Secretary of the No. 4 Mass Miniature Radiography Unit, for sending me the results of the survey, which are shown in the following tables.

The number of patients referred by general practitioners returned to average, as did the total number examined.

The outstanding feature of the results is the marked decrease in incidence of pulmonary tuberculosis discovered. There were only 3 cases found.

Again special efforts were made to obtain the attendance of immigrants from Pakistan and India and 286 were examined. It will be noted that 2 of the 3 cases found were from this group.

The incidence of malignant new growth remains static.

Examinations carried out in Bolton during 1966

	MALE	FEMALE	BOTH SEXES
General Practitioner Referrals	476	338	814
General Public Volunteers	3,755	4,233	7,988
Factory/Offices	3,223	1,396	4,619
Others	15	47	62
TOTALS	7,469	6,014	13,483

The numbers compared with previous years are:

	1960	1961	1962	1963	1964	1965	1966
General Practitioner							
Referrals	304	507	536	867	1,082	492	814
General Public							
Volunteers	6,672	5,282	4,984	7,596	6,711	4,466	7,988
Factory/Offices	3,631	1,405	6,546	5,169	5,640	6,639	4,619
Others . .	183	4,393	—	747	98	133	62
TOTALS	<u>10,790</u>	<u>11,587</u>	<u>12,066</u>	<u>14,379</u>	<u>13,531</u>	<u>11,730</u>	<u>13,483</u>

Significant Abnormalities
(Distribution by Age and Sex)

	Males										Females										Grand Total			
	Under 14	14-19	20-24	25-34	35-44	45-54	55-64	65 & over	Total	Rate per 1000	Under 14	14-19	15-19	20-24	25-34	35-44	45-54	55-64	65 & over	Total	Rate Per 1000	Cases	Rate per 1000	
Abnormalities																								
Tuberculosis requiring close clinical super- or treatment.				2			1		3	0.40										-	-	3	0.22	
Tuberculosis requiring only occasional out-patient supervision				1	2		1	2	11	1.47						2	2	3		7	1.16	18	1.34	
Malignant Neoplasms.							3	2	10	1.34						2				2	0.33	12	0.89	
Non-Malignant Neoplasms.									-											-		-		
Lymphadenopathies, (excluding Sarcoids)									-											-		-		
Sarcoids (including enlarged Hilar Glands).									-											-		-		
Congenital Cardiac abnormalities and abnormalities of the Vascular System.									-											-		-		
Acquired Cardiac abnormalities and abnormalities of the Vascular System.																								
				1		2	3	2	8						1	1	2	5	2	1	12	20		
Pneumoconiosis without P.M.F.							2	1	3											-		3		
Pneumoconiosis with P.M.F.									-											-		-		

Respiratory Tuberculosis Requiring Treatment (Distribution by type of Examinee, Age and Sex)

Type of Examinee	Males														Females														Grand Total				
	Under 14	15-19	20-24	25-34	35-44	45-54	55-59	60-64	65 & over	Total	Under 14	15-19	20-24	25-34	35-44	45-54	55-59	60-64	65 & over	Total													
General Practitioner Referrals										-										-											-	-	
Factories/Offices						1				1											1											1	1
General Public Volunteers						1				2											2											2	2
Immigrants from India and Pakistan included in above groups						2				2											2											2	2
TOTALS:						2				3										1	3											3	3

Malignant Neoplasms

(Distribution by type of Examinee, Age and Sex)

Type of Examinee	Males										Females										Grand Total																
	Under 14	15-20				25-35				45-55				60-65 & over				Total	Under 14	15-20				25-35				45-55				60-65 & over				Total	
		14	19	24	34	44	54	59	64	65 & over	Total	14	19	24	34	44	54			59		64	65 & over	Total													
General Practitioner Referrals							1			3	4																						4				
General Public Volunteers ..							1	2	2	5										1											1	6					
Factories/Offices							1			1											1											1	2				
TOTALS							3	2	5	10																					2	12					

Mass Miniature Radiography Surveys

	No. of Persons Examined			Active Tuberculosis			Malignant Neoplasms		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
1959									
Rate per 1,000 examined	11,781	10,686	22,467	13 1.1	14 1.3	27 1.20	12 1.01	5 .46	17 .76
1960									
Rate per 1,000 examined	5,640	5,150	10,790	7 1.24	2 .39	9 .83	9 1.60	1 .19	10 .93
1961									
Rate per 1,000 examined	6,530	5,057	11,587	15 2.30	10 1.98	25 2.16	9 1.39	2 .39	11 .92
1962									
Rate per 1,000 examined	6,559	5,507	12,066	1 .15	9 1.63	10 .83	15 2.29	3 .54	18 1.49
1963									
Rate per 1,000 examined	7,818	6,561	14,379	8 1.03	4 .61	12 .83	8 1.03	3 .46	11 .76
1964									
Rate per 1,000 examined	6,651	6,880	13,531	8 1.20	4 .58	12 .89	15 2.26	4 .58	19 1.40
1965									
Rate per 1,000 examined	6,685	5,045	11,730	7 1.05	3 .59	10 .85	10 1.50	1 .20	11 .94
1966									
Rate per 1,000 examined	7,469	6,014	13,483	3 .40	— —	3 .22	10 1.34	2 .33	12 .89

VENEREAL DISEASE

Dr. Philip S. Silver has supplied the following information which relates to Bolton residents only in attendance at his clinic.

The number of new cases of syphilis from the Bolton area was 4, which is a decrease of 16 compared with the figure for 1965.

The number of new cases of gonorrhoea in the Bolton area was 157 - an increase of 64 over the previous year.

The number of new cases of non-venereal disease was 310, which constituted a decrease of 97 on 1965.

Twenty-four cases were referred from the Moral Welfare Worker and the ante-natal clinic, two more than in 1965. The clinic staff carried out 77 domiciliary visits for the purpose of ascertaining the cause of non-attendance.

There have been an increasing number of complaints that the place and times of the clinics are not advertised sufficiently in the town and surrounding areas. It is, therefore, very important that notices should be displayed in as many public places as possible, if we are to fulfil the object of the Venereal Disease Service in preventing the spread of infection and reducing the number of people who might become psychiatric patients as the result of unfounded worries about venereal disease.

The following table summarises the situation for the past twelve years.

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Syphilis	43	23	22	19	19	10	14	16	10	7	20	4
Gonorrhoea	75	58	55	57	58	74	123	72	46	64	93	157
Non-Venereal Disease	237	286	256	214	265	320	348	349	352	335	407	310
TOTALS:	355	365	333	290	342	404	485	437	408	406	510	471

PART IV

ENVIRONMENTAL HYGIENE

Work of the Chief Public Health Inspector

Slum Clearance

Clean Air

Inspection and Supervision of Food

General Sanitation

Disinfection and Disinfestation

Report of the Borough Analyst

WORK OF THE CHIEF PUBLIC HEALTH INSPECTOR

Two subjects requiring priority in the work of the public health inspectors during the past year were the implementation of an extensive slum clearance programme, and the establishment of further smoke control areas.

It was impracticable to deal with food hygiene at restaurants and factory canteens in an adequate manner, because of shortage of staff. Nevertheless, in this field it was essential to press for improvements at the Ashburner Street Market to enable the new legislation (Food Hygiene (Markets, Stalls and Delivery Vehicles) Regulations, 1966) to be complied with. The Markets Committee are giving active consideration to this matter.

New work in association with the Manchester University Radiation Protection Laboratories on radioactivity measurements in fish and seafoods is described on page 00. The horizon is being widened to deal with other foods, especially to confirm the possibility of artificial contamination, believed to be Zinc-65, being present.

There is an urgent need for a detailed housing survey in Bolton. Although a random survey is envisaged on the lines set out in the publication "Our Older Homes - A Call for Action", this needs supplementing, by house-to-house inspections in certain areas to enable an accurate picture of sub-standard areas of property to be obtained. This will be essential when the anticipated new standards of housing fitness are incorporated in future housing enactments. Such a survey has never been carried out in Bolton, and the acute shortage of experienced men precludes an attempt made in the foreseeable future.

Bolton is a training ground for public health inspectors who leave to work mainly in adjacent towns in Lancashire. Of the many students trained here, only two remain.

If a few experienced public health inspectors were appointed, giant strides could be made in this field of environmental hygiene.

SLUM CLEARANCE

Clearance Areas and Compulsory Purchase Orders:

Since the start of the Council's Slum Clearance Programme (November, 1955) there have been 3,863 houses demolished by way of compulsory purchase order or individual unfit house procedure. There have been 2,918 families rehoused from these premises.

During the year 1966, there were 381 houses demolished and 356 families were rehoused under the provisions of the Housing Acts 1936-1964. The areas dealt with were as follows:

Halliwell Ward No. 1 (Arden Street Area)
Great Lever Ward No. 1 (Fylde Street Area)
West Ward No. 10 (Ainscow Street Area)
West Ward No. 11 (Belgrave Street Area) and special cases in
Halliwell Ward No. 4 (Plato Street Area) and
Derby Ward No. 12 (Mason Street Area)

Confirmed Clearance Area:

Following a public inquiry held on May 17th, 1966, the Bolton (Derby Ward Nos. 12 to 18 Clearance Areas) Compulsory Purchase Order, 1965, was confirmed with modification by the Minister of Housing and Local Government on the 17th October, 1966. The modification was in respect of one property which in the opinion of the Minister could not be regarded as an unfit house. This property was transferred to Part III of the order schedule.

Nine applications for well maintained payments were approved. One hundred and eighty-six premises will be affected in this area and four hundred and forty-four persons will require rehousing.

Future Clearance Areas:

The survey and inspection of dwellings and other premises was completed in the Plato Street, Southern Street and Boundary Street Clearance Areas.

On the 23rd March, 1966, two hundred and forty unfit houses, including houses and shops and other businesses, were represented to the Health Committee and subsequently the Bolton (Halliwell Ward Nos. 2, 3 and 4 Clearance Areas) Compulsory Purchase Order, 1966 (Plato Street - Southern Street Areas) and the Bolton (West Ward No. 12 Clearance Area) Compulsory Purchase Order, 1966 (Boundary Street Area), were made. The former included one hundred and twenty-three unfit dwellings, and five other premises. The latter included one hundred and twenty-one unfit dwellings, four other dwellings, and two other premises. Six hundred and twenty-three persons will require rehousing from these four areas. A public inquiry for both areas will be held on January 24th, 1967. The survey and inspection of dwellings and other premises was completed in the Cooper Street and Howard Street Clearance Areas.

On the 16th November, 1966, three hundred and ninety-eight unfit houses including houses with shops and other businesses, were represented to the Health Committee, and subsequently the Bolton (East Ward Nos. 6 and 7 Clearance Areas) Compulsory Purchase Order, 1967 (Cooper Street Area) and the Bolton (North Ward Nos. 1, 2, 3 and 4 Clearance Areas) Compulsory Purchase Order, 1967 (Howard Street Area) were made.

The former included one hundred and thirty-nine unfit dwellings, six other dwellings, and four other premises.

The latter included two hundred and fifty-nine unfit dwellings, twenty four other dwellings, and nine other premises.

One thousand and seventy-five persons will require rehousing from these six areas.

A public inquiry for both areas will be held on August 15th, 1967.

In accordance with the Council's clearance programme, houses and other buildings were inspected in the Rivington Street, Horrocks Street and Valletts Lane areas. The unfit houses will be represented to the Health Committee early in 1967.

General:

In November, the Ministry of Housing and Local Government drew the attention of local authorities to the report "Our Older Homes, a Call for Action" issued by the Housing Fitness Sub-Committee of the Central Housing Advisory Committee.

The report surveys a wide range of problems affecting older houses and their environment. It includes recommendations on standards, and proposals for making better use of houses which are worth retaining and for clearing unfit houses more quickly. The report indicates a need for more detailed information about the condition of older houses.

Consequently, the Minister announced that he intends to carry out a national survey, the result of which is expected to give a balanced general description of the conditions in existing houses. The survey is to commence early in 1967.

In addition to the above, preparations were made by the Chief Public Health Inspector to commence a local sample survey. This survey will include approximately a thousand houses of different types, selected from every ward, and in the manner specified in the report. The result is expected to give a fair estimate of the numbers of houses which are (a) unfit, (b) not unfit, but below a satisfactory standard, and (c) up to a satisfactory standard.

Inspections of houses were carried out during the year in accordance with Section 3 of the Housing Act, 1957, and for the purpose of preparing proposed clearance areas for consideration at meetings of the Working Party on slum clearance.

Plans and reports were prepared in co-operation with other departments of the Corporation and representatives of other bodies in respect of redevelopment and other matters concerning slum clearance.

A considerable amount of work is involved in the Public Health Inspectors' section on ownership inquiries, preparation of working maps, final census, preparation of papers for representations and evidence for public inquiries in connection with clearance areas. After consideration of the work of the Public Health Inspector in Bolton by the Work Study and Organisation and Methods Department, during the year a member of the Town Clerk's staff was appointed to carry out the work involved in ownership inquiries, and the preparation of the ownership schedule required in slum clearance.

Inquiries from Purchasers of Houses:

Numerous inquiries at the Health Department continue to be made by persons interested in house purchase. The inspectors gave information on the existing slum clearance programme to 2,809 inquirers during the year. The number of inquiries regarding land charges received from potential purchasers of properties within the Borough was 3,185.

Compensation:

Under the Housing Act, 1957, payments may be made in respect of condemned houses which have been well maintained by either the owner or the occupier.

Temporary provision for payments to owner-occupiers and others in certain circumstances in respect of unfit houses purchased, closed or demolished under Part II or III of the Act, were to have ceased on the 13th December, 1965, but these payments will be continued with modifications by virtue of the Housing (Slum Clearance Compensation) Act, 1965, which received the Royal Assent on the 22nd December, 1965.

Advances for House Purchase:

In connection with advances for House Purchase, the Borough Treasurer requests the advice of the Health Department as to whether or not the houses concerned have a life of less than ten years. This information is based on the Corporation's approved programme and the opinion of the Chief Public Health Inspector.

Improvement and Standard Grants:

The following information has been kindly supplied by the Borough Planning Officer in respect of the year 1966:

Number of applications received	..	..	..	493
Number of applications approved	..	..	..	446
Number of applications refused	..	..	..	6
Number of applications cancelled	..	..	..	14

The Borough Planning Officer states that in all cases applicants are interviewed and where possible inspections are carried out so that advice can be given prior to the application being made, so as to avoid the necessity for the refusal of applications. In addition the Borough Planning Officer requests the advice of the Health Department in all cases as to whether or not houses concerned are likely to have a life of not less than fifteen years. Such information is, of course, merely in the nature of a provisional estimate based on the Chief Public Health Inspector's appreciation of the situation, as the Corporation's approved programme of slum clearance does not, as yet, extend beyond the year 1970.

Certificates of Disrepair - Rent Act, 1957:

In view of the complexity of the procedure for the issue of various certificates under the Rent Act, 1957, all applications for certificates have continued to be dealt with by the Insanitary Areas and Premises Sub-Committee. No appeals to the Courts have been made against any of the Sub-Committee's decisions since the Act came into force.

The following table gives details of the types and numbers of certificates applied for, and the action taken by the Sub-Committee.

APPLICATIONS FOR CERTIFICATES OF DISREPAIR:

Number of applications for certificates	..	..	..	..	..	..	2
Number of decisions not to issue certificates	..	..	..	..	..	..	—
Number of decisions to issue certificates:							
(a) in respect of some but not all defects	..	..	..	..	..	..	—
(b) in respect of all defects	..	..	..	..	..	..	—

Number of undertakings given by landlords under paragraph 5 of the First Schedule	2
Number of undertakings refused by Local Authority under proviso to paragraph 5 of the First Schedule	—
Number of certificates issued	—

APPLICATIONS FOR CERTIFICATES AS TO THE REMEDYING OF DEFECTS:

Number of applications by tenants	—
Number of applications by landlords	—
Number of certificates issued	—

APPLICATIONS FOR CANCELLATION OF CERTIFICATES:

Applications by landlords to Local Authority for cancellation of certificates	2
Objections by tenants to cancellation of certificates	—
Decisions by Local Authority to cancel despite tenant's objections	—
Certificates cancelled by Local Authority	2

STATEMENT OF ACTION TAKEN UNDER RENT ACT, 1957 SINCE 6TH JULY, 1957, UP TO THE PRESENT DATE:

Number of applications for Certificates of Disrepair	569
Number of undertakings given by landlords	204
Number of Certificates of Disrepair issued	358
Number of Certificates of Disrepair cancelled by Local Authority	75

Housing Statistics:

HOUSES NOT INCLUDED IN CLEARANCE AREAS:

Action was taken under the appropriate enactments as follows:

NEW ACTION:

Houses represented under Section 16 of the Housing Act, 1957	84
Demolition Orders made	61
Closing Orders made	39
Undertakings not to re-let for human habitation	—

COMPLETED ACTION:

Houses demolished	46
Persons rehoused	100
Houses closed	197
Persons rehoused	56
Cases pending at close of the year	28

Housing Inspections:

INSPECTION OF DWELLING-HOUSES

1. Dwelling-houses inspected for housing defects (under Public Health Act or Housing Acts)	1,713
Inspections made for the purpose	7,420
2. Dwelling-houses (included under sub-head (1) above) which were inspected under the Housing Consolidated Regulations, 1925, as amended by the Housing Consolidated Amendment Regulations, 1932	563
Inspections made for the purpose	563

REPAIRS - INFORMAL ACTION

Unfit or defective houses rendered fit as a result of informal action by the Local Authority under the Public Health Act or Housing Acts	299
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ACTION UNDER STATUTORY POWERS

PUBLIC HEALTH ACT, 1936:

Houses in which defects were remedied after service of formal notices:	
By owners	241
By Local Authority in default of owners	63

HOUSING ACT, 1957:

No action was taken under sections 9 or 10.

CLEAN AIR

Measurement and Investigation of Atmospheric Pollution:

The existing system for the measurement and study of atmospheric pollution, comprising nine volumetric air sampling stations set up in 1957, was continued throughout the year.

Details of the monthly averages for smoke and sulphur dioxide recorded at each station are shown in the tables.

The work includes the determination of carcinogens at five of the stations.

The results obtained over the past five years show a reduction in smoke and sulphur dioxide.

Installation of Furnaces:

PRIOR APPROVAL, CLEAN AIR ACT, 1956, SECTION 3 (2)

Four applications for approval of proposed furnace installations were dealt with under this section. In each case approval was given either to the proposal as originally submitted, or as modified after consultation with the Chief Public Health Inspector.

NOTIFICATION, CLEAN AIR ACT, 1956, SECTION 3 (3)

In addition to the four cases mentioned above, twenty-two installations were notified under this sub-section.

Improvement and Replacement of Furnaces:

The changing pattern in the industrial use of existing buildings creates the problem that excellent boiler plants may be quite uneconomic or inconvenient for the new requirements. For this reason two fairly large installations have been scrapped and replaced during the year.

The following are the main installations completed during 1966:

Three three-pass economic boilers, oil-fired with full automatic control, to replace four large water tube boilers, coal-fired, with broad chain grates.

One three-pass economic boiler, oil-fired, with full automatic control.

One vertical water tube boiler, coal-fired with underfeed stoker and over fire air supply.

These two boilers replace a centralised plant of four Lancashire boilers.

One three-pass economic boiler, oil-fired, with full automatic control.

One three-pass economic boiler, oil-fired, with full automatic control.

One three-pass economic boiler, oil-fired, with full automatic control.

The three installations replace a centralised plant of six Lancashire boilers coal-fired by chain grate stokers.

Two 30,000 lb./hr. three-pass economic boilers oil-fired with full automatic control and the installation of 140 ft. smoke stack.

Three underfeed stokers were installed on Lancashire boilers in situations where electricification of machinery, etc., had reduced the steam demand to a very low level.

Two 1½ million B.Th.U. gas-fired boilers were installed in the Town Centre Smokeless Zone.

Industrial Fumes, Dust, etc.

One case of fume emission was resolved by the rearrangement of existing equipment.

A further case of fume emission was dealt with by the erection of a tall disposal stack.

A case of dust emission was overcome by the installation of a multi-bag air filter.

Alkali etc. Works Registration Act, 1906:

Six premises are registered under the Act, i.e.

Electricity generating station	..	..	..	..	1
Gas works	..	..	..	..	1
Iron and steel manufacture	..	..	..	..	2
Chemical manufacture	..	..	..	..	2

Close collaboration is maintained with the local alkali inspector and advice and assistance have been given by him in a number of matters outside his own province.

Smoke Control Areas:

The following table shows the position regarding smoke control areas at 31st December, 1966:

**Table of Smoke Control Areas
under Bolton Corporation Act, 1949, and Clean Air Act, 1956**

	ORDER CONFIRMED	OPERATIVE
TOWN CENTRE SMOKELESS ZONE	3.4.54	1.11.54
Acreage	86	
Premises	1050	
EAST WARD SMOKE CONTROL AREA	14.11.57	1.6.58
Acreage	58.1	
Premises	332	
CROOK STREET SMOKE CONTROL AREA	29.4.58	1.11.58
Acreage	2.1	
Premises	81	
QUEENS PARK SMOKE CONTROL AREA	22.7.60	1.5.61
Acreage	140	
Premises	257	

		ORDER CONFIRMED	OPERATIVE
SCHOOL HILL SMOKE CONTROL AREA	.. .. .	19.1.60	1.8.60
Acreage	.. .. . 8.75		
Premises	.. .. . 301		
BEVERLEY ROAD SMOKE CONTROL AREA	.. .. .	19.1.60	1.8.60
Acreage	.. .. . 0.787		
Premises	.. .. . 18		
DEANE SMOKE CONTROL AREA	.. .. .	15.5.61	1.5.62
Acreage	.. .. . 126.10		
Premises	.. .. . 827		
BRIGHTMET ESTATE EXTENSION SMOKE CONTROL AREA	..	15.5.61	1.5.62
Acreage	.. .. . 68.88		
Premises	.. .. . 143		
CRUMPSALL STREET ESTATE EXTENSION SMOKE CONTROL AREA	.. .. .	15.5.61	1.5.62
Acreage	.. .. . 1.77		
Premises	.. .. . 14		
LEONARD STREET ESTATE EXTENSION SMOKE CONTROL AREA	.. .. .	15.5.61	1.5.62
Acreage	.. .. . 1.27		
Premises	.. .. . 32		
LEVER EDGE LANE ESTATE EXTENSION SMOKE CONTROL AREA		15.5.61	1.5.62
Acreage	.. .. . 1.211		
Premises	.. .. . 20		
GREENLAND ROAD SMOKE CONTROL AREA	.. .. .	15.5.61	1.5.62
Acreage	.. .. . 3.32		
Premises	.. .. . 32		
RADCLIFFE ROAD SMOKE CONTROL AREA	.. .. .	15.5.61	1.5.62
Acreage	.. .. . 16.13		
Premises	.. .. . 136		
ASHWORTH LANE SMOKE CONTROL AREA	.. .. .	15.5.61	1.5.62
Acreage	.. .. . 35.36		
Premises	.. .. . 241		
MOSS FARM ESTATE SMOKE CONTROL AREA	.. .. .	Agreed in principle by Ministry on 12.8.60, but no Order made	
Acreage	.. .. . 10.77		
Premises	.. .. . 123		
HULTON SMOKE CONTROL AREA	.. .. .	28.12.61	1.10.62
Acreage	.. .. . 63.98		
Premises	.. .. . 691		
RUMWORTH SMOKE CONTROL AREA	.. .. .	28.12.61	1.10.62
Acreage	.. .. . 95.22		
Premises	.. .. . 1571		
LEVER EDGE LANE (SOUTH) SMOKE CONTROL AREA	.. .. .	28.12.61	1.10.62
Acreage	.. .. . 102.8		
Premises	.. .. . 643		
HEATON SMOKE CONTROL AREA	.. .. .	21.5.62	1.7.63
Acreage	.. .. . 425.6		
Premises	.. .. . 3606		
MARKLAND HILL AND IVY ROAD SMOKE CONTROL AREA		30.5.63	1.12.63
Acreage	.. .. . 296.5		
Premises	.. .. . 2481		
WEST WARD No. 1 (Deferred demolition area)	.. .. .	31.1.66	1.8.66
Acreage	.. .. . 0.5		
Premises	.. .. . 51		

DERBY WARD No. 1 (Gate Street)	31.1.66	1.8.66
Acreage	9.16	
Premises	313	
WEST WARD No. 2 (Egyptian Street)	31.1.66	1.8.66
Acreage	15.4	
Premises	450	
DERBY WARD No. 2 (Noble Street)	31.1.66	1.8.66
Acreage	5.476	
Premises	52	
HALLIWELL WARD (Arden Street)	31.1.66	1.8.66
Acreage	6.72	
Premises	220	
WEST WARD No. 3 (Ainscow Street)	31.1.66	1.8.66
Acreage	4.25	
Premises	161	
VICTORIA ROAD SMOKE CONTROL AREA	29.4.66	1.11.66
Acreage	209	
Premises	539	
HALLIWELL AND SMITHILLS SMOKE CONTROL AREA	Order made 5.10.66, awaiting confirmation.	
Acreage	138	
Premises	1883	

The acreages and numbers of premises of various kinds, covered by operative Smoke Control Orders at the end of 1966, were as follows:

ACREAGE: 1,784.

NUMBERS OF PREMISES:

Dwellings	12,876
Commercial	821
Industrial	177
Others	388
TOTAL	<u>14,262</u>

The six Smoke Control Orders which have been made in respect of areas being cleared under slum clearance procedure were confirmed on the 31st January, 1966, and came into operation on the 1st August, 1966. These Orders cover a total acreage of 41.506 acres, and will eventually contain 1,247 premises.

The Victoria Road Smoke Control Order made by the Town Council in December, 1965, was confirmed on the 29th April, 1966, and came into operation on the 1st November, 1966. This area covers 209 acres and contains 539 premises. This area is subject to a designation of open inset coke grates under section 95(2), Housing Act, 1964, which has the effect of precluding the payment of grants from public funds for the installation of open fires burning "soft" coke.

Action under the Council's smoke control programme (in abeyance since March, 1964) was resumed in October, 1966, when the Council made a Smoke Control Order in respect of the Halliwell and Smithills Smoke Control Area.

This area covers 138 acres and is bounded by Halliwell Road, Eskrick Street, Elgin Street, Church Road, Captains Clough Road and Moss Bank Way. The area contains:

Dwelling houses	..	..	..	..	..	..	..	1,845
Industrial premises	..	..	..	..	..	..	..	7
Commercial premises	..	..	..	..	..	..	..	15
Other premises	..	..	..	..	..	..	..	16

The usual enquiries were made regarding the availability of fuel supplies, and the required guarantees were given in respect of electricity and gas; although the North Western Gas Board stated that no guarantee could be given regarding supplies of gas coke or Phimax for **future** smoke control areas, the National Coal Board and the Solid Smokeless Fuel Distributive Trade Representatives all stated that adequate supplies of hard coke were available; the National Coal Board also stated that Homefire and Roomheat would be available. Since no adequate guarantee could be given of the availability of a cheap solid smokeless fuel as an alternative to the more expensive premium cokes for use on open fires, the Town Council made a designation under the Housing Act, 1964, similar to that in respect of the Victoria Road Smoke Control Area, to prevent the payment of grants from public funds towards the installation of "soft" coke appliances. At the end of 1966, confirmation of this Order was still awaited.

Towards the end of the year it was learned that substantial private housing development was to be carried out in the Ladybridge area of Bolton, and consequently a survey was commenced of the area bounded by Junction Road, Beaumont Road, the Railway and Deane Church Clough, with a view to the making of a Smoke Control Order. The Order was subsequently made by the Town Council on the 1st February, 1967. This area covers 200 acres, and before private development commenced contained 29 existing premises; the housing development when completed is expected to be in the region of 1,200 dwelling houses. This area also was made the subject of a section 95 designation under the Housing Act, 1964.

Every effort is made to ensure that householders receive every assistance when Smoke Control Orders are being promoted. A wide supply of literature is provided and arrangements are made for the Mobile Exhibition of the Solid Smokeless Fuels Federation to visit proposed areas; the Mobile Exhibition paid two such visits to Bolton in February and July, 1966, on each occasion being stationed for three days at sites within the Victoria Road Smoke Control Area, and for three days within the Town Centre. In addition, the North Western Electricity Board staged an exhibition in the Victoria Road Smoke Control Area during August. In May, a public meeting and "brains trust" was held for representatives of local women's organisations by the Women's Advisory Council on Solid Fuel and was well supported; the Medical Officer of Health and Deputy Chief Public Health Inspector were members of the panel on this occasion.

Observations to ensure that Smoke Control Orders are being observed are made as frequently as the staffing permits. Offenders are warned verbally and in writing, and warning letters, to be sent by the Town Clerk, are authorised by the Health Committee; such action was taken in 154 cases during 1966. In two cases offenders were prosecuted in the Borough Magistrates' Court, fines of 10s. and £4 respectively being imposed.

The Chief Public Health Inspector attended meetings of the Joint Committee of North Western "Black Area" Local Authorities and the department collaborated in the study made by the Committee of smokeless fuel needs for the period 1965 - 1969.

Welcome support for the Clean Air Programme was given during the year by the local Civic Trust.

The following table gives details of action taken during 1966 in the implementation of confirmed Smoke Control Orders:

SMOKE CONTROL PROGRAMME (1.1.66 to 31.12.66)

Applications:

No. of houses in respect of which applications for approval of proposed works were submitted	324
Estimated expenditure liable for grant	£14,122 12 11
Estimated amount of grant payable by Corporation (seven-tenths)	£9,885 17 2

Claims:

No. of houses in respect of which claims for payments of grants were received	233
Total amount paid by way of grant	£7,053 6 8
No. of 100% grants paid	3
Amount paid in 100% grants	£114 16 0
Additional cost of 100% grants	£34 8 10

INSPECTION AND SUPERVISION OF FOOD

Radioactivity Measurements on Fish and Seafoods - Research Project with Manchester University:

During the past year a small pilot scheme was initiated by the Chief Public Health Inspector concerning radioactivity measurements on fish. The samples were supplied by a local wholesale fish merchant, and subsequently processed and tested by a senior public health inspector working in the University Radiological Protection Service laboratories.

Originally, it was contemplated that special sampling of migratory fish should be carried out, as it was thought that these might not be adequately covered by an existing programme of radiation monitoring. Although fish are normally regarded as only a small source of radioactive contamination in the human diet, the increasing discharge of radioactive waste in the oceans of the world and the growing number of nuclear propelled vessels at sea might possibly lead to some small increase in the level of contamination. The fish which have been selected were intended to be representative of public consumption in Bolton.

All the measurements of gross radioactivity were made on samples of the fleshy parts after ashing and counting on a standard G.M. counter. After correcting for background activity, the activity has been estimated as Potassium-40, using conversion factors determined with pure potassium-chloride. The values, with the one exception of scallops, are typical of the normal potassium values to be expected in samples of fish and this has been confirmed by analysis of the radiations in a γ -spectrometer. There were some indications of the presence of Zinc-65, but the quantities were too small for confirmation other than by lengthy radiochemical procedures.

The levels of radioactivity were the natural levels to be expected in samples of fish and cannot, therefore, be expected to give rise to any long term risk to health.

It is intended that the determinations of radioactivity shall be continued to provide confirmation of the presence of Zinc-65 and of any other artificial sources of contamination.

Table I
Radioactivity Measurements on Fish

FISH EXAMINED										Source
Name										
Lump fish	..	..	..	..	..	..	..	..	..	Nairn
Cod	..	..	..	..	..	..	..	..	..	Bare Island
Cod	..	..	..	..	..	..	..	..	..	Fare Island
Cod	..	..	..	..	..	..	..	..	..	Iceland
Scallops	..	..	..	..	..	..	..	..	..	Aberdeen
Catfish	..	..	..	..	..	..	..	..	..	Iceland
Mackerel	..	..	..	..	..	..	..	..	..	Norway
Cod	..	..	..	..	..	..	..	..	..	Fare Island
Roach	..	..	..	..	..	..	..	..	..	Wayoh Reservoir

Table II

No.	Fish	Activity as pCi K40/Kg wet fish flesh ($\pm 2\sigma$)
1	Lump fish	1,220 \pm 103
2	Cod	3,220 \pm 197
3	Cod	2,215 \pm 142
4	Cod	1,730 \pm 68
5	Scallops	10,500 \pm 691
6	Catfish	2,103 \pm 93
7	Mackerel	1,799 \pm 157
8	Cod	2,648 \pm 134
9	Roach	4,010 \pm 415

Milk:

MILK AND DAIRIES (GENERAL) REGULATIONS, 1959:

No. of Dairies	7
No. of Milk Distributors (including retail shops and dairy roundsmen)	563
No. of Dairy Vehicles	130

MILK (SPECIAL DESIGNATION) REGULATIONS, 1963 and MILK (SPECIAL DESIGNATION) (AMENDMENT) REGULATIONS, 1965:

During the year 1966, the following licences were granted:

Dealers' (Pre-packed Milk) Licences valid to 31.12.70	590
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DAIRIES AND DAIRY VEHICLES:

	DAIRIES	DAIRY VEHICLES
No. of inspections.	98	86
No. of notices served	3	8

Most of the dairy vehicles were of a good standard, but opportunity was taken wherever possible to remind roundsmen of their obligation to display their names and addresses on their vehicles.

SAMPLING OF MILK FOR BACTERIOLOGICAL EXAMINATION:

Samples of milk were taken regularly from dairies, processing plants, milk shops, schools and vending machines, and during the course of delivery to consumers. Details of the examinations carried out are given on page 00. All samples were reported satisfactory

BIOLOGICAL SAMPLING OF MILK:

Three-hundred and fifty-five samples of untreated milk from 580 cows at 18 farms were examined for *Brucella abortus*. Ten cows reported as positive for this organism were slaughtered.

A voluntary joint scheme between the National Farmers' Union and the Health Department, for the control of brucellosis, was agreed upon following cases of undulant fever reported in six Bolton residents.

The scheme was put into operation at the end of October, 1966. Samples of milk are taken at each farm and submitted to the Pathological Laboratory of Bolton Royal Infirmary.

The scheme has been operating successfully. Up to the end of December 4 animals out of 421 were found to be positive and were voluntarily slaughtered.

The survey is expected to be completed by Spring, 1967.

SAMPLING OF MILK FOR CHEMICAL ANALYSIS:

Five-hundred and seventy-two samples were taken, 42 of which were reported as unsatisfactory. Legal action was taken in respect of two formal samples, one containing penicillin and one containing extraneous water. Both the samples were from the same farm. A further two samples containing penicillin were referred to the Town Clerk for legal action. The remaining "unsatisfactory" samples were genuine but of sub-standard quality. The Divisional Milk Officer of the Ministry of Agriculture, Fisheries and Food was notified regarding these samples.

Bacteriological Examination of Ice Cream:

Thirty-five samples of ice cream were taken from manufacturers and vendors. Eight samples were reported as unsatisfactory according to the provisional grading of the Public Health Laboratory Service; in addition, two of these were also reported to contain intestinal organisms. Five of the eight unsatisfactory samples were from a local manufacturer. The management and staff of this firm were advised on numerous occasions about hygienic handling of ice cream as contamination was taking place during storage and subsequent serving stage. The firm employs a private analyst for bacteriological control of ice cream.

Inspection of Meat and Other Foods:

The inspection of a wide variety of foodstuffs has been carried out at slaughterhouses, markets, and food shops. This necessitated employing the meat inspectors outside normal office hours so that a full service could be maintained.

Meat Inspection:

The rate of slaughtering was as follows:

	CATTLE	CALVES	SHEEP	PIGS	TOTAL
Average weekly "kill"	422	18	501	608	1,549
Maximum weekly "kill"	443	21	526	721	1,711

The following table shows the number of animals slaughtered and inspected, together with the evidence of diseases and other abnormalities in carcasses inspected at the private slaughterhouses and public abattoir:



Enlarged spleen affected with sarcomatous tumour and smaller normal spleen for comparison.

	Cattle ex- cluding Cows	Cows and Bulls	Calves	Sheep and Lambs	Pigs
Number of animals killed and inspected	5,806	6,634	644	32,128	25,393
ALL DISEASES EXCEPT TUBERCULOSIS AND CYSTICERCOSIS:					
Whole carcasses condemned	3	43	6	33	68
Carcasses of which some part or organ was condemned	1,205	3,216	4	5,732	11,465
TUBERCULOSIS ONLY:					
Whole carcasses condemned	1	—	—	—	—
Carcasses of which some part or organ was condemned	—	—	—	—	—
CYSTICERCOSIS:					
Carcasses of which some part or organ was condemned	29	5	—	—	—
Carcasses submitted to treatment by refrigeration	29	5	—	—	—
Generalised and totally condemned	—	—	—	—	—

An interesting case occurred in a slaughtered bovine which was found to have an abnormally large spleen, measuring 3' 4" long \times 9" wide \times 3" thick, and weighing approximately 20 lbs. The carcase and spleen were examined by a veterinary officer of the Ministry of Agriculture, Fisheries and Food, and specimens of splenic tissue were sent to the Pathology Laboratory of the Bolton Royal Infirmary for examination. The subsequent reports showed the spleen to have been locally infiltrated with areas of sarcomatous tissue. There were no signs of anthrax and the carcase set satisfactorily and bleeding was normal. A photograph of the spleen, with a normal spleen for comparison purposes is shown opposite.

The following table shows the quantities of carcase meat and offal coming into Bolton from Ireland and delivered to certain local wholesale butchers; regular visits for inspection of imported meat and offal are made to these premises.

Quarters of Beef	Lambs	Offal	Bacon
2,440	6,616	315 cartons	194 bales

MEAT INSPECTION REGULATIONS, 1963; MEAT INSPECTION (AMENDMENT) REGULATIONS, 1966:

All carcasses of animals slaughtered within the Borough were inspected in accordance with the Regulations and stamped with the inspector's mark. The 1966 Amendment Regulations enable local authorities to restrict hours of

slaughtering and the Council consequently passed a resolution restricting slaughtering as follows: Mondays to Fridays 7 a.m. to 5 p.m., Saturdays 7 a.m. to 1 p.m., Sundays - no slaughtering permitted; the times mentioned include the period required at the end of the day for washing down and cleaning up, etc. The introduction of restricting hours of slaughter coincided with the opening of the new abattoir at Lever Street, and no difficulty has been experienced due to restriction of slaughtering hours.

Analysis of Parts of Carcases of Animals Condemedned

The following table gives the various diseases and conditions found as percentages of the total number of animals affected. It was found that some animals were affected by two or more diseases or conditions. It will be noted that telangiectasis has a high incidence, the reason being the high proportion of aged cattle being killed for manufacturing meat.

NATURE OF DISEASE OR CONDITION	PERCENTAGE
Telangiectasis	70.6
Tuberculosis .. .. .	.01
Cysticercus bovis .. .. .	.4
Distomatosis (liver fluke)	56.2
Septicaemia and Pyaemia	5.4
Mastitis	10.9
Actinomycosis .. .. .	.5
Pneumonia, Pleurisy, Peritonitis	25.5
Others	14.4

Foodstuffs Condemedned

	TONS	CWTS.	QRS.
Meat (fresh)	35	13	0
Meat (tinned)	3	18	4
Tongue (tinned)	—	7	2
Ham (tinned)	1	1	1
Poultry	—	9	0
Fish (tinned)	—	6	1
Fish (fresh)	—	4	2
Vegetables (tinned)	—	7	2
Vegetables (fresh)	—	19	1
Fruit (tinned)	—	15	6
Fruit (fresh)	1	5	3
Milk (tinned)	—	1	1
Provisions (miscellaneous)	2	3	2
TOTAL	47	14	1

Disposal of Condemedned Meat:

Facilities were given for the collection of certain offals and glands for pharmaceutical purposes; all other condemned meat was collected according to regulations and converted into fertilisers or animal feeding stuffs where appropriate. At the new Bolton Abattoir in Lever Street all condemned meat is retained in a locked room under the direct supervision of the food inspectors for daily collection by a processing firm.

Slaughterhouses:

On the 1st September, 1966, the Minister of Agriculture, Fisheries and Food made the Slaughterhouses (Hygiene) Regulations (Appointed Day - No. 3) Order, 1966; the Slaughter of Animals (Prevention of Cruelty) Regulations (Appointed Day - No. 3) Order, 1966, to come into operation on the 1st October, 1966. These two Orders had the effect of bringing into full operation in Bolton the provisions of the Slaughterhouse (Hygiene) Regulations, 1958, and the Slaughter of Animals (Prevention of Cruelty) Regulations, 1958. The slaughterhouse at All Saints Street, Bolton, operated by the Bolton and District Co-operative Society, Ltd., and at Howard Street, Bolton, operated by the Bolton Wholesale Meat Company were closed down on the 30th September, 1966. The pig slaughterhouse at Back Scholey Street, operated by Knowles (Pig Dealers) Ltd., remained in existence and improvements are being carried out.

The new privately owned abattoir at Lever Street, Bolton, was opened on the 15th August, 1966, and for two weeks was operated only on a pilot scale to enable the slaughtermen to adapt themselves to the new method of off the floor dressing, slaughtering of the remaining animals continuing at the public abattoir in Thynne Street. On the 30th September, 1966, the public abattoir closed and all the buildings have since been demolished. Apart from the minor teething troubles inevitably associated with the new premises and new methods, the new abattoir has operated successfully, and a very great advance in meat hygiene has resulted.

A considerable increase in throughput has occurred at the new abattoir, and this has necessitated the appointment of a fourth food inspector (i.e. an authorised meat inspector) to assist in this work.

Slaughter of Animals Acts, 1933 - 1958:

During the year 44 licences were issued to slaughtermen. No contraventions of the Acts or Regulations were reported.

Poultry Inspection:

The following information is provided for the first time in accordance with Ministry of Health Circular 1/67; the figures given relate only to the fourth quarter of the year, statistics on this subject not having been previously required.

There are three major poultry processing premises within the Borough, in addition to shops and wholesale premises where poultry are killed on a smaller scale.

Sixty-six visits were made to the three major premises, and 34 visits to the remaining premises.

The total number of birds processed during the year at the three major premises are as follows:

Hens	60,500
Broilers	219,300
Capons	5,900

The percentage of birds rejected as unfit for human consumption was 1% at each of two premises, and 1.5% at the third premises.

The total weight of poultry condemned at the three major premises was 3 tons 8 cwt. 1 qr., and at the remaining shops and warehouses - a total weight of 9 cwt. 1 qr.

Routine visits to poultry processing premises are made as frequently as possible having regard to the food inspectors' general commitments, particularly those relating to meat inspection at the two abattoirs in the town. The system operated is that envisaged in Circular 22/66, i.e. proprietors of the premises have been provided with copies of the circular and the criteria for inspection and birds suspected of being diseased or otherwise unfit for human consumption are put aside for inspection by the food inspectors.

Generally speaking, the premises satisfied the requirements of the Food Hygiene Regulations, and every effort is made to secure adherence to the Code of Practice on Poultry Dressing and Packing, although at one of the premises concerned major alterations cannot be requested as the premises have a very short life due to impending road widening.

Diseases of Animals Acts:

ANTHRAX ORDER, 1938:

Twelve cases of suspected anthrax were investigated during the year (1 sheep, 8 pigs, 3 cows); in each case a negative report was given.

FOWL PEST:

No outbreaks were reported during the year.

SWINE FEVER:

No outbreaks were reported during the year.

TUBERCULOSIS:

One case was found during inspection. Specimens were sent to the Ministry of Agriculture, Fisheries and Food and proved positive. The necessary information was forwarded to the Ministry for the purpose of tracing the farm from which the animal came.

Movement Licences:

In view of the closure of the public abattoir at Thynne Street and the opening of the new privately owned abattoir in Lever Street, it was arranged that in future movement licences during outbreaks of epizootic disease would be issued by the food inspectors from the Lever Street abattoir between set hours, i.e. Mondays to Fridays - 10 to 12 a.m. and 2 to 4 p.m. Saturdays and Sundays 10 to 12 a.m.

Food and Drugs Sampling for Chemical Examination:

The following samples of food and drugs were obtained by the public health inspectors for chemical analysis:

		GENUINE	UNSATISFACTORY	TOTAL
Food Samples:				
Formal		46	12	58
Informal		335	21	356
Drug Samples:				
Formal		16	3	19
Informal		64	3	67
Milk Samples:				
Formal		152	41	193
Informal		378	1	379
TOTALS ..		991	81	1,072

Legal proceedings were taken in the following cases:

Milk - contained 0.09 International Units per millilitre penicillin - fined £10 plus 3 gns. costs.

Milk - contained 2.3% extraneous water - fined £10 plus 3 gns. costs.

A local farmer was involved in both these cases. The milk was sampled during the course of delivery to a local dairy.

Mustard oil adulterated with 47% mineral oil. The suppliers were fined £15 plus 6 gns. costs.

In all other cases of unsatisfactory samples, action was taken by way of warnings to the vendors or manufacturers of the products concerned or by the voluntary surrender and destruction of the goods.

Food Hygiene:

Details of the visits made, etc., in connection with the enforcement of the Food Hygiene (General) Regulations, 1960, are given in Table 3 on page 134. As a result of this work the following improvements were effected in the town's food premises.

Structural improvements:

Floors	130
Walls and ceilings	199
Doors, windows	64
Decorations	113
Lighting	36
Ventilation	26
Drainage	17

Fittings, equipment, etc.:

Sinks, etc.	19
Wash hand basins, etc.	47
Water supplies - cold	18
Water supplies - hot	20
Shop fittings, equipment, etc.	120
Miscellaneous improvements	131

As in previous years, special inspections were made of all the school meals kitchens and hospital kitchens and detailed reports and recommendations were sent to the Chief Education Officer and the Bolton and District Hospital Management Committee, respectively.

Where necessary, night visits or weekend visits have been paid to premises, notably in connection with licensed premises.

The work of food hygiene continued to be seriously affected by the shortage of public health inspectors, and inspections in some cases are two or three years in arrears. Details of legal proceedings are given on page 00.

Bacteriological Examination of Foodstuffs:

Twelve samples of cooked and uncooked meat, fish cake and cream confectionery were submitted to the Department of Pathology at the Bolton Royal Infirmary for bacteriological examination; all of these were the subject of complaints by members of the public.

One sample of fish cake was found to contain faecal organisms. Advice was given to the canteen cook and staff about washing hands.

Fifteen bacterial swabs of utensils and equipment were taken at a works canteen following an outbreak of food poisoning. All the results were negative.

Bacteriological Examination of Beer Glasses, etc.:

Since March, 1963, it has been possible to grow cultures of any contaminating bacteria on the outside of beer glasses. The culture shows as a red colony on the surface of the glass. Swabs are also taken by a public health inspector for normal bacteriological examination by the Department of Pathology at Bolton Royal Infirmary. Work on this subject had to be discontinued from 1965 until December, 1966, owing to the acute shortage of qualified public health inspectors.

The following table summaries the results obtained so far:

	1963	1964	1966
No. of beer glasses sampled	221	56	6
No. satisfactory on first visit	133	6	3
No. not satisfactory on first visit	56	6	3
No. satisfactory on subsequent visits	26	34	—
No. not satisfactory on subsequent visits	6	10	—
No. outstanding	—	5	3
No. of visits made	443	112	12

CONTAMINATION DUE TO:

Staph. aureus (coag. positive)	12	5	1
Strep. viridans	8	1	1
Diphtheroid bacilli	1	—	—
Ps. pyocyaneus	1	—	—
B. friedlander	1	—	—
N. catarrhalis	1	—	—
All organisms of faecal origin	44	10	1



Beer glass showing bacterial cultures in relief. These areas are red and visible to the naked eye.

The unsatisfactory results are usually due to the incorrect amount of detergent steriliser being added to the washing-up water. In one case, it was necessary to change the type of sterilant in use. Faulty dispensers of the displacement type have also lead to unsatisfactory results.

In all cases the fullest co-operation has been received from the licensed trade and the breweries.

Some breweries have themselves carried out investigations using the Bolton technique.

Six bank notes used in food shops were examined for bacteriological contamination with the following results:

Sparse growth of staph. albus (coagulase negative)	..	..	5
Sparse growth of strep. viridans N. Catarrhalis	..	..	1

This step was taken because of a habit of some waiters and food handlers of piacing notes in their mouths whilst counting-out change.

Food Complaints:

One hundred and fifteen complaints were made by members of the public in 1966; fifteen of these were found on investigation to be unjustified. Foods alleged to have caused food poisoning were examined chemically and bacteriologically, and were found in all cases to be free from pathogenic organisms.

Twenty-four complaints referred to various types of insects and larvae found in food both home produced and imported.

All complaints were thoroughly investigated and in some cases stocks of food were withdrawn from sale; legal proceedings were taken in five cases and warning letters were sent where appropriate to the vendors and manufacturers concerned.

Type of Food	Nature of Complaint				Total	Legal Action
	Mouldy	Foreign Matter	Unsatisfactory Appearance Taste or Smell	Suspected of Causing Food Poisoning		
Bread	—	3	—	—	3	1
Confectionery, pies, pasties and cooked meats	2	18	12	3	35	2
Uncooked meats ..	1	—	3	—	4	—
Canned meats & fish	2	5	4	—	11	—
Butter, Cheese & milk	2	5	7	—	14	1
Canned food	1	9	2	1	13	1
Other foods	—	17	16	2	35	2
	8	57	44	6	115	7

Infestation in Food:

Fifty-seven samples of cereals, dried fruits and other similar foods were submitted for examination for mites, insects and rodent excreta; four of these samples were found to be infested with mites. In all cases the remaining stock was withdrawn from sale and destroyed.

Liquid Egg (Pasteurisation) Regulations, 1963:

There are no egg pasteurisation plants in the Borough, nor have any samples of liquid egg been submitted for the Alpha-Amylase test.

Legal Proceedings - Food Hygiene:

An ice cream vendor was fined £7, plus £5 costs, for absence of hot water, and the presence of dirty window grooves in his ice cream van.

Another ice cream vendor was fined £15, plus 5 gns. costs, for the absence of hot water, nailbrush and soap; dirty hand towel; and general dirty condition of his van.

Legal Proceedings - Food Complaints:

A Manchester bakery was fined £20, plus 5 gns. costs, for selling a cake containing a plaster dressing.

A firm of canners were fined £25, plus 10 gns. costs, for selling a can of apricots containing an earwig.

A second Manchester bakery was fined £10, plus 3 gns. costs, for selling a sliced loaf containing oily dough; at a later date the same bakery was fined £10, plus £5 costs, for selling a currant tea cake containing a piece of wood.

A Bolton baker was fined £3, plus £3 costs, for selling a meat and potato pie containing a strand of metal from a pan scrubber.

A dairy situated outside Bolton was fined £10, plus 5 gns costs, for selling milk in a bottle containing dust particles.

A company selling frozen foods was fined £10, plus 5 gns. costs for selling a packet of peas containing a slug.

A company supplying packet peas was fined £10, plus 3 gns. costs for selling a packet of peas containing a slug.

GENERAL SANITATION

Conversion of Waste Water Closets:

During the year, a sum of £2,000 was allocated in the estimates for the conversion of waste water closets to fresh water closets. The amount of the grant at present is a maximum sum of £15, the grant having been raised to this figure during 1963; 92 grants were paid. The average cost of conversions at the present time is from £38 to £47.

Public Water Supplies:

All employees of the Waterworks Undertaking who are directly concerned with the water supply are required to submit one specimen of faeces annually for bacteriological examination; new employees are required to submit faecal specimens on three successive days, and a specimen of blood is also taken for a Widal test.

Mr. H. R. Davenport, Waterworks Engineer and Manager, has supplied the following information regarding the water supply to the Borough, although the Undertaking's area of direct supply includes adjoining authorities:

"The water supplied to the County Borough of Bolton by this Undertaking was satisfactory both as regards quality and quantity.

Normally, samples of both raw and filtered water are regularly subjected to full bacteriological examination and chemical analysis. Special examinations and analyses are made as circumstances require.

During 1966, 673 samples of raw water were subjected to bacteriological examination and part chemical analyses and 12 to full chemical analyses. In addition, 1,641 samples of filtered and treated water received bacteriological examination and partial chemical analysis and 18 full chemical analysis. Results showed that the filtered and treated water was of satisfactory quality, B. Coli being absent in 98.48% of the potable water samples tested. All water is treated before passing into supply.

No special action was required to be taken in respect of any form of contamination. From tests made the water was shown to have no significant plumbo-solvent action.

The public water mains afforded a direct supply to a population of approximately 157,200 people living in 56,582 dwelling houses, maisonnettes or flats within the Borough. No supply was afforded to dwelling houses by standpipe.

The following extensions and renewals of water mains were carried out during 1966:

SIZE	EXISTING PROPERTY	NEW PROPERTY	OTHER DEVELOPMENT	RENEWED
2"	354 yds.	619 yds.	61 yds.	—
3"	102 yds.	1,791 yds.	115 yds.	471 yds.
4"	250 yds.	443 yds.	100 yds.	—
6"	—	—	—	4 yds.
12"	—	—	—	78 yds.
18"	—	—	—	56 yds. "

Sewage Disposal:

The following information has been supplied by Mr. I. Withnell, General Manager of the Bolton and District Joint Sewerage Board:

"Sewage from the County Borough area, consisting of domestic waste water, trade effluent and surface water is purified at the Ringley Fold Treatment Works of the Bolton and District Joint Sewerage Board. The quantity treated during 1966, including drainage from other Constituent Authority areas, Kearsley, Turton, part of Worsley and Little Lever, the last having been connected early in the year, totalled 5,948.7 million gallons, an average of 16.3 million gallons per day. Purification by the activated sludge process produced a well stabilised non-putrescible effluent for discharge to the river conforming with the requirements of the Mersey and Weaver River Authority. Digestion treatment of sludges, i.e. the impurities removed from sewage, which renders them relatively innocuous, became fully established during the year.

Connections to the sewerage system of industrial discharges from eight trade premises were approved, subject to conditions controlling quantity and nature, but in another eight cases, previously approved, discharge ceased".

Factories Act, 1961:

There are 942 factories within the Borough which were the subject of 155 inspections, resulting in 6 cases in the service of written notices on the occupiers. Full details of the work carried out under the Factories Act, 1961, are contained in Tables 7 to 10 on pages 00 and 00. The trend towards the conversion of large cotton mills for multiple occupation by several different occupiers has continued.

Offices, Shops and Railway Premises Act, 1963:

Up to the end of 1966, 1,549 premises had been registered with the local authority in accordance with the Act; in 55 cases applications forwarded to the local authority in error were re-directed to the Factory Inspectorate.

Details of registrations, inspections, action taken, accidents, etc., are given in Table 11.

Although a substantial amount of work has been carried out by way of enforcement within the town centre area, little progress has been made in the outlying areas, due to the continued shortage of district inspectors.

No serious accidents were reported during the year.

Generally speaking, reasonable co-operation in complying with the Act, once notices have been served, has been experienced, but in one case it was necessary to institute legal proceedings under sections 4, 10 and 16 of the Act. Guilty pleas were entered to all the summonses, and the Magistrates imposed fines amounting to £35 plus 5 gns. advocate's fee.

Reference was made in the 1965 Annual Report to the absence in Form OSR 1 of any question regarding the registered or business address of the employer, as distinct from the address of the premises to be registered. This has continued to give some difficulty. Perhaps the greatest enforcement problem

so far encountered, however, is in the tracing of the ownership of buildings subject to section 42 or 43 of the Act, and in this connection it is suggested that it might be useful if those provisions of the Public Health Acts regarding the supplying of written information in response to Requisitions for Information were incorporated in the Act, as already applies to premises subject to the Food and Drugs Act, 1955.

Houses in Multiple Occupation:

During the year 38 visits and inspections were made of houses in multiple occupation and 3 informal notices were served.

The serious shortage of inspectors continued to prevent any headway being made on the problem of multiple occupation. There are thought to be between 200 and 300 premises requiring action under the legislation relating to houses in multiple occupation.

Common Lodging Houses:

During the year the Crompton Street Hostel was closed down. Discussions took place with the Salvation Army regarding the provision of hostel accommodation in Bolton, and the Council eventually agreed to make a site available to the Salvation Army in the Moss Street area of Bolton, for the erection of a new hostel. The Salvation Army later felt they were unable to proceed, and at the end of 1966 discussions were still taking place as to the future of the existing hostel in St. George's Road.

Offensive Trades:

There were three offensive trades within the Borough, i.e.,

- 1 fellmonger
- 1 gut scraper
- 1 fellmonger and gut scraper

There are no local byelaws affecting these trades, but the comparatively small number of premises involved, and the satisfactory standards of cleanliness and maintenance, do not justify the making of special byelaws.

Hairdressing Establishments:

There were 395 hairdressing premises registered in accordance with the Bolton Corporation Act, 1949, section 48. Thirty-seven inspections were made and 11 improvements effected.

Pharmacy and Poisons Act, 1933, the Poison Rules, 1964/65:

The names of 193 persons are included in the Local Authority's list of persons entitled to sell poisons under part II of the Poisons List. The attention of shopkeepers was drawn, verbally or in writing, to any infringements of the Act or Rules.

Pet Animals Act, 1951:

Eleven premises were licensed and 11 inspections made. In general, establishments have been satisfactorily conducted, but where necessary, verbal or written notices were issued.

Animal Boarding Establishments Act, 1963:

Two premises were licensed under the Act. Suitable conditions were attached to the licences based upon the general recommendations of the R.S.P.C.A., and the specific recommendations of the Chief Fire Officer in respect of each establishment.

Riding Establishments Act, 1964:

One riding establishment was licensed during 1965.

Rag Flock and Other Filling Materials Act, 1951:

This legislation prescribes standards of cleanliness for filling materials used in upholstered articles, stuffed toys, etc., and the Local Authority are required to register or licence premises where the relevant operations are carried out. There are 20 premises in the Borough registered under the Act.

Nuisance from Noise:

During the year a further 24 complaints were received and are classified as follows:

COMPLAINTS OF NOISE FROM NON-DOMESTIC PREMISES

Machinery	..	..	..	..	..	..	..	..	..	..	8
Fans	..	..	..	..	..	..	..	..	..	..	3
											— 11

COMPLAINTS OF NOISE FROM DOMESTIC PREMISES

Radios, etc.	..	..	..	..	..	..	..	..	..	..	4
Animals	..	..	..	..	..	..	..	..	..	..	7
Miscellaneous	..	..	..	..	..	..	..	..	..	..	2
											— 13

Complaints were also received regarding alleged noise nuisance from cars and motor cycles, and these complaints were referred to the Police for action.

Use has been made of a tape recorder to determine whether or not alleged noises have, in fact, been heard, some cases having occurred where the noise complained of was purely or largely imaginary.

Fertilisers and Feeding Stuffs Acts, 1926:

Twenty-eight samples of fertilisers and feeding stuffs were obtained. Two samples of fertilisers and two of feeding stuffs were found to contain ingredients which were in excess of statutory requirements, these were, however, not to the prejudice of the purchaser. The manufacturers were notified in each case.

Merchandise Marks Act, 1926:

Observations were made during routine inspections of shops and food premises, for any contraventions of the various orders made under the above Act.

The attention of traders was drawn to contraventions of marking, mainly in connection with imported "frozen" meat and offal, especially when pre-packed in small quantities for retail sale from refrigerated cabinets. Immediate alteration in the method of display and marking was made as soon as the contraventions were explained. A warning was given in each case, no further legal action being thought necessary. This action has brought about a marked improvement in retail shops regarding the proper marking of imported frozen meat with the country of origin.

DISINFECTION AND DISINFESTATION

Disinfection:

Routine terminal disinfection of premises after cases of illness is carried out in special cases only. No charge is made where such work is carried out in the interests of public health. Details are given in Table 12 on page 141.

A special stock of equipment, together with a supply of formaldehyde, and a mixture of carbolic soap, water and white cyllin, is retained at School Hill in readiness for immediate use in the event of smallpox occurring. Facilities exist for the disinfection of vehicles and special containers are available for enclosing infected mattresses and bed linen.

Disinfestation:

An increasing number of occupiers of food or other business premises subject to special infestation risks continue to enter into annual agreements with the Corporation for regular treatment of their premises, with a view to preventing insect infestation; in many cases the agreements also provide for preventive measures against rodent infestation. There are now 143 agreements in force, and the annual income from pest destruction is now almost £5,200. Table 13 on page 141 summaries the work carried out.

Regular destruction treatments to control the rat population in the sewers are carried out by the Borough Engineer's Department in collaboration with the Health Department. Warfarin is the poison in general use, but zinc phosphide and arsenious oxide are used on occasions, paranitrophenol being incorporated to inhibit mould growth. In selected areas, fluoroacetamide is used under strict supervision.

The schools and school meals kitchens in the Borough are surveyed at least once every two months to detect any rodent or insect infestation. Any necessary treatment is carried out immediately.

Control of the rodent population on the Corporation's controlled tipping sites is maintained by regular surveys and treatments. River banks are also subject to regular surveys and any infestation dealt with.

The use of Warfarin for mice infestations has been discontinued. Treatment is now based on the use of alphachloralose with the result that those infestations which were not responding to Warfarin have now been cleared.

A cockroach infestation which had withstood repeated treatments with Dieldrin and Malathion was successfully cleared by the use of a carbamate insecticide.

A licence has been issued by the Ministry of Agriculture, Fisheries and Food for the use of alphachloralose for controlling feral pigeons.

Mortuary:

The mortuary forms part of the premises at School Hill used as a Disinfection and Disinfestation Depot. An attendant is employed in combined mortuary duties and disinfestation.

Thirteen bodies were received at the mortuary during the year. Post mortem examinations were carried out on 12, all of them being coroners' cases. Refrigeration facilities are provided for the storage of bodies.

Municipal Medical Baths:

The medical baths are situated in an annexe to the School Hill Depot. The cleansing of verminous persons is carried out by a part-time female worker and the foreman of the Depot.

A summary of the cases dealt with is given below.

	School children		Children under five		Adults	
	Males	Females	Males	Females	Males	Females
Head infestations	3	3	1	7	1	4
Scabies	14	15	2	6	84	19
Body Lice	—	—	—	—	58	—
TOTALS ..	17	18	3	13	143	23

TABLE 1

Complaints:

The following complaints were received and investigated:

Housing defects	531
Choked and defective drains	258
Accumulation of offensive matter	177
Unsatisfactory foodstuffs	121

Verminous premises:

(a) Bed bugs	50
(b) Rat and mouse infestations	2,066
(c) Cockroaches and other insect pests ..	380
Keeping of animals and poultry	10
Smoke	78
Noise	24
Offensive odours	69
Miscellaneous	322
TOTAL	4,086

TABLE 2

Standing Commitments:

Premises Subject to Routine Inspection

TYPE OF ESTABLISHMENT	NO. OF PREMISES
Common lodging house	1
Houses in multiple occupation	263
Moveable dwellings	71
Food Premises:	
Bakehouses	152
Basement bakehouses	4
Fish friers	129
Registered premises, Sec. 16 Food and Drugs Act, 1955 ..	518
Industrial canteens	84
Other catering establishments	148
Miscellaneous food preparing premises	77
Ice cream premises - manufacture	6
Ice Cream premises - sale only	456
Meat shops	160
Slaughterhouses	2
Dairies	7
Milk distributors	529
Food shops	990
Licensed premises (On-)	264
Licensed premises (Off-)	180
Food stalls	104
Vehicles - Meat	15
Vehicles - Milk	130
Factories (Mechanical)	827
Factories (Non-mechanical)	115
Workplaces	216
Offices	396
Retail shops	855
Wholesale shops, Warehouses	74
Catering establishments open to the public, canteens	523

NOTE: So far as is known, all the above premises comply with Regs. 16 and 19 of the Food Hygiene (General) Regulations, 1960.

TYPE OF ESTABLISHMENT	NO. OF PREMISES
Fuel storage depots	1
Outworkers' premises	132
Factory chimneys	202
Hairdressers' premises	395
Places of entertainment	73
Clubs	34
Offensive trades	3
Registered premises, Rag Flock and Other Filling Materials Regulations, 1951 and 1954	20
Pet Shops (Pet Animals Act, 1951)	11
Animal boarding establishments	2
Riding establishments	1

TABLE 3

Detection of Sanitary Defects:**Summary of Visits and Inspections**

NATURE OF VISIT	NO. OF VISITS
Dwelling-houses for housing defects under Public Health Act:	
After complaint	936
Subsequent visits	2,892
Dwelling-houses under Housing Acts:	
Detailed inspections	544
Re-inspections, re-visits	3,038
Certificates of disrepair	14
Infected dwelling-houses:	
After notified infectious disease (other than tuberculosis)	221
Contacts	52
Schools and church halls	39
Swimming baths	—
Water sampling:	
Swimming baths	6
Dwelling-houses	—
Business premises	56
Cinemas, dance halls, billiard halls	2
Offensive trade premises	84
Stables, piggeries, keeping of animals	71
Houses in multiple occupation	38
Factories Acts, 1961:	
Factories with mechanical power	131
Factories without mechanical power	13
Outworkers' premises	1
Common lodging houses	2
Underground rooms	4
Hairdressing premises	37
Tents, vans, sheds	84
Smoke abatement:	
Boiler house surveys	12
re Prior Approval applications	8
re Smokeless Zone and Smoke Control Areas	2,196
Delivery of pamphlets	2,525
Smoke observations	74
Smoke investigations	31
Re-visits	371
Combustion readings	—
Volumetric stations	700
Noise abatement	88
Fairgrounds	43
Drainage:	
Conversions from waste water to water carriage system	149
Miscellaneous tests and inspections	336

Public sewers	23
Watercourses and ditches	33
Land and tips	227
Septic tanks and cesspools	2
Sanitary conveniences - including public houses	48
Miscellaneous visits	3,766
Visits not inspections	1,430

Verminous premises:

Rats and mice: After complaint or from survey	2,353
Subsequent and survey visits	14,044
Bug infestations: No. of premises visited	59
No. of premises where definite infestation existed	50
Cockroaches	401
Other vermin	255

Inspections for supervision of food:

Unfit foodstuffs other than meat	210
Slaughterhouses and cold stores	2,831
Butchers' Shops (Food Hygiene (General) Regulations, 1960)	297

Food Hygiene (General) Regulations, 1960:

Bakehouses	88
Fish shops, grocers and greengrocers	1,105
Factory canteens	65
Restaurant kitchens, fish friers, etc.	144
Chemists	59
Hotel and beerhouse bars and cellars:	
Day inspections	162
Night inspections	12

Food and Drugs Act, 1955 - Section 16:

Ice cream premises (Heat Treatment Regs. 1959 - 1963) ..	26
Sausage manufacturers	34
Preserved meat preparation premises	235
Preserved fish preparation premises	3

Milk and Dairies Regulations, 1959: Food and Drugs Act, 1955 - Section 91:

Milk sampling for bacteriological examination	94
Contraventions of Milk and Dairies Regulations	-
Dairies	125
National Assistance Act, 1948 - Section 47	-
Diseases of Animals Acts and Orders	43
Farms (Brucellosis, sampling, etc.)	44

Offices, Shops and Railway Premises Act, 1963:

General inspections	170
Other visits	506

TABLE 4

Notices served:

Action to secure abatement of nuisances and to enforce the appropriate statutory enactments was taken as follows:

Nature of Notice	Public Health Act 1936	Food Hygiene (General) Regulations 1960	Factories Act 1961	Offices, Shops and Railway Premises Act 1963	Byelaws: Hairdressers and Miscellaneous Premises
No. of informal notices served	436	232	8	81	12
No. of informal notices complied with without recourse to statutory action	206	175	10	98	11
No. of statutory notices served	470	—	—	—	—
No. of premises concerned . .	260	—	—	—	—
No. of statutory notices complied with	343	—	—	—	—
No. of premises concerned . .	199	—	—	—	—
No. of cautionary letters sent by Town Clerk	88	—	—	—	—

Outstanding notices from previous year are included.

TABLE 5

Housing Defects and Legal Proceedings

A summary of general housing defects or disrepair of property where it was necessary to take legal proceedings, and the results of such proceedings is given below:

CASE NO.	STATUTE	DETAILS OF CONTRAVENTION	RESULT
1	Public Health Act, 1936 - Sections 39, 93.	Failure to comply with statutory and abatement notices in respect of drainage and general defects.	Nuisance Order made against owner and fine of £2 plus 18/6d. costs imposed.
2	Public Health Act, 1936 - Sections 39, 45.	Continued failure to carry out drainage work.	Fine of £16 15s. 0d. imposed (= 67 days at 5/- per day).
3	Public Health Act, 1936 - Sections 39, 56, 93.	Failure to comply with statutory and abatement notices in respect of defective drainage, yard surface and general defects.	Nuisance Order made against owner, and fines totalling £6 plus 8/6d. imposed.
4	Public Health Act, 1936 - Section 93.	Failure to comply with abatement notice in respect of general defects.	Nuisance Order made.
5	Public Health Act, 1936 - Sections 39, 45.	Continued failure to renew broken water closet pedestal and clear blocked drain.	Fine of £13 6s. (= 1/- per day for 91 days, i.e. £4 11s. (section 39)) (= 1/- per day for 175 days, i.e. £8 15s. (section 45)).

6 Public Health Act, 1936 - Section 288.	Obstructing a public health inspector in pursuance of a Magistrate's warrant to enter his premises for the purpose of supervising drainage work. Every attempt had been made to secure access by informal methods beforehand.	Fine £3 on each of 4 charges plus 4 gns. advocate's fee.
7 Public Health Act, 1936 - Sections 39, 56, 95.	Failure to comply with statutory and abatement notices in respect of general defects.	Section 39 - Fine - £4 2s. 6d. Section 56 - Fine - £4 2s. 6d. Section 95 - Fine - £1 plus £2 2s. costs.
8 Public Health Act, 1936 - Section 93.	Failure to comply with abatement notice in respect of general defects.	Nuisance Order made; costs of 8/6d. plus £3 3s. advocate's fee imposed.
9 Public Health Act, 1936 - Section 95.	Failure to comply with abatement notice.	£3 fine imposed.
10 Public Health Act, 1936 - Sections 39, 45, 93.	Failure to comply with abatement and statutory notices.	Nuisance Order made and costs of 8/6d. imposed.

Twenty-two cases in which summonses had been served were withdrawn, the necessary works having been carried out; a further two cases were referred to the Town Clerk with a view to legal proceedings, but where the service of summonses was not required, the necessary works having been carried out.

TABLE 6

Sanitary Improvements Effected:

Action was taken under either the Public Health Act or the Housing Acts.

NATURE OF IMPROVEMENT	NO. OF IMPROVEMENTS
Floors repaired	37
Internal walls repaired	217
Ceilings repaired	72
Doors and windows repaired	174
Stairs repaired	8
Roofs repaired	161
Chimneys and flues repaired	69
Eavesgutters repaired	91
Rainwater pipes repaired	41
Soil and waste pipes repaired	34
External walls repaired	30
Yards, paths, etc., repaired	21
Sanitary convenience repaired	104
"Tippler" closet conversions	1
Refuse accommodation	22
Drains repaired	80
Fireranges repaired	10
Sinks, water supplies, wash boilers, etc., repaired	25
Miscellaneous	124

TABLE 7
Factories Act, 1961
Places of Employment
Defects Found

Particulars	Number of cases in which defects were found				No. of cases in which prosecutions were instituted
	Found	Remedied	Referred		
			to H.M. Inspector	by H.M. Inspector	
Want of Cleanliness (S.1)	4	1	—	1	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3) . .	—	—	—	—	—
Inadequate ventilation (S.4)	—	—	—	—	—
Ineffective drainage of floors (S.6) . .	—	—	—	—	—
Sanitary Conveniences (S.7):—					
(a) Insufficient	2	—	—	2	—
(b) Unsuitable or defective	15	14	—	—	—
(c) Not separate for sexes	1	1	—	—	—
Other offences against the Act (not including offences relating to Outwork)	1	—	—	1	—
TOTALS	23	16	—	4	—

TABLE 8
Factories Act, 1961
Outwork (Sections 133 and 134)

Nature of Work	Section 133			Section 134		
	No. of Outworkers in Aug. list required by Sec. 133 (1) (c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing (Making etc.) apparel ..	7	—	—	—	—	—
Furniture and Upholstery ..	45	—	—	—	—	—
Brush making ..	2	—	—	—	—	—
Stuffed Toys ..	—	—	—	—	—	—
Making paper fancy goods ..	205	—	—	—	—	—
TOTALS ..	259	—	—	—	—	—

TABLE 9**Factories Act, 1961****Places of Employment - Improvements Secured**

Cleanliness improved	11
Temperature improved	1
Sanitary Accommodation:	
Additional accommodation provided	20
Accommodation improved	17
Accommodation reconstructed	1
Ventilation improvements	11
Drainage improvements	2
Miscellaneous improvements	13

TABLE 10**Factories Act, 1961****Places of Employment****Inspection for Purposes of Provisions as to Health**

Premises	Number on Register	Number of		Occupiers Prosecuted
		Inspec- tions	Written Notices	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	115	24	7	-
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	824	31	8	-
(iii) Other premises in which Section 7 is enforced by the Local Authority * (excluding outworkers' premises) ..	36	3	-	-
TOTALS	975	58	15	-

*Electrical Stations, Institutions, Building Operations and Works of Engineering Construction.

TABLE 11

Offices, Shops and Railway Premises Act, 1963

Table A - Registrations and General Inspections

Class of Premises	Number of Premises Registered during the Year	Total Number of Registered Premises at End of Year	Number of Registered Premises Receiving a General Inspection During the Year
Offices	17	396	15
Retail Shops	29	855	124
Wholesale Shops, Warehouses	12	87	16
Catering Establishments Open to the Public, Canteens	3	210	15
Fuel Storage Depots	—	1	—

Table B

No. of Visits of all kinds by Inspectors to Registered Premises 676

Table C - Analysis of Persons Employed in Registered Premises by Workplace

Class of Workplace	Number of Persons Employed
Offices	5,587
Retail Shops	4,639
Wholesale Departments, Warehouses	1,455
Catering Establishments Open to the Public	1,710
Canteens	140
Fuel Storage Depots	14
TOTAL	13,545
TOTAL MALES	5,080
TOTAL FEMALES	8,465

Table D - Exemptions "Nil".**Table E - Prosecutions instituted of which the hearing was completed in the year.**

Section of Act or title of Regulations or Order	No. of persons or companies prosecuted	No. of informations laid	No. of informations leading to a conviction
Sections 4, 10, 16	1	3	3

No. of complaints (or summary applications) made

under Section 22 Nil

No. of interim orders granted Nil

Table F - Inspectors

No. of inspectors appointed under Section 52(1) or 5 of the Act	11
No. of other staff employed for most of their time on work in connection with the Act	1

TABLE 12
Disinfection

	Free of Charge	On Payment of Charge	Total
Premises visited for Disinfection	5	—	5
Beds	202	—	202
Rooms	31	2	33
Articles	148	—	148
Articles Destroyed	43	—	43

The premises disinfected free of charge were for the following reasons:

Cancer	4
Tuberculosis	1

TABLE 13
Disinfestation

Infestation by	Number of Premises Disinfested				Total
	Domestic Premises	Business & Industrial	Hospitals	Schools	
Bed Bugs.. .. .	42	8	—	—	50
Cockroaches	251	72	42	14	380
Fleas	19	—	—	—	19
Golden Spider Beetles	14	1	—	—	15
Wasps	61	1	2	—	64
Wood Lice	8	—	—	—	8
Body Lice	3	—	—	—	3
Silver Fish	14	1	—	5	20
House Fly	7	6	1	—	14
General Disinfestation	46	—	—	—	46
Others	28	8	—	—	36

TABLE 14
Destruction of Rats and Mice
Prevention of Damage by Pests Act, 1949

	Type of Property	
	Non-Agricultural	Agricultural
PROPERTIES OTHER THAN SEWERS		
1. Number of properties in district	56,940	90
2. (a) Total number of properties (including nearby premises) inspected following notification	2,333	20
(b) Number infested by (i) Rats	1,002	20
(ii) Mice	1,168	—
3. (a) Total number of properties inspected for rats and/or mice for reasons other than notification	882	5
(b) Number infested by (i) Rats	387	5
(ii) Mice	509	—

REPORT OF THE BOROUGH ANALYST

There was a time when certain classes of foods never, or very rarely found their way into Public Analysts' laboratories. For example some years ago it would have been most unlikely for samples of prime fresh beef or luscious grapes of perfect appearance to be examined by a public analyst. Those were the days when the eye of a discerning buyer could fairly assess a large range of foods by inspection. It has always required the work of an analyst to say how much meat was present in compounded meat mixtures such as sausages, and to assess the amount of fruit in a jam, but more and more nowadays the apparently pure unadulterated basic foodstuffs require analytical scrutiny because of the almost ubiquitous presence of traces of chemical contamination.

In the treatment of vegetable foods the first application of chemicals can take place as a seed dressing, perhaps to be followed by a succession of applications of fertilisers, selective weed killers and pesticide chemicals. The harvested crop may then during storage receive further applications of pesticide chemicals. Because of the storage of certain pesticide residues in the animal body, the new unborn animal receives from its mother a quota of pesticide material. Milk from animals, and of course human milk, contains traces of pesticide chemicals. In fact, the dissemination of pesticides throughout a vast range of foodstuffs is now established throughout the world. Even immediately preceding the purchase of an article of food it may just have received trace contamination from the type of pesticide vaporising lamps and heaters in use for insect control. These are used in shops as well as warehouses.

At the end of 1965, the Borough laboratory acquired basic gas chromatography equipment for the measurement of the common types of persistent pesticide substances in foods. During the year under review a small amount of ancillary gas chromatography equipment was added to enable work on pesticide residues to be readily carried out.

In August, 1966, the National Survey on Pesticides in Food commenced. Bolton is included in this scheme which provides for the accumulation of nation-wide analytical data on the pesticide content of selected classes of foods (particularly staple articles of diet, bread, milk, meat etc.).

The range of foods sampled for the more usual analytical reasons has covered a wide and varied range. Ale brewing ingredients and a range of industrial sugars used at local breweries have been examined with special reference to trace arsenic contamination. A range of cheap imported wines have been examined for non-permitted preservatives; canned beers and stout have been checked for metallic contamination and milk has been regularly tested for the presence of antibiotic substances.

The number of food and drugs examined has shown a slight decrease compared with the previous year from 1,155 to 1,072. In part the reduction in numbers is due to the prolonged absence of the Chief Assistant Analyst due to illness and also to the fact that some of the modern analytical procedures take much longer to perform than some of the older types of analysis.

The range of drugs analysed included old established and new counter proprietaries (the drugs readily available to the public and sold without restriction), and a variety of scheduled drugs available to the public on prescription only.

The examination of food and drugs forms only a part of the work of the laboratory. A large section of the work is concerned with the supply of water by Bolton Corporation to nearly half a million people. During the year, 2,775 samples were examined for the Waterworks Committee. The regular check on the quality of the water supplied by the Waterworks Department is an important laboratory function. In addition work on methods of chemical treatment of water and assessment of Waterworks-plant performance is also carried out.

Regular checks on the bacteriological quality of the water at the public baths and at the school swimming pools have been made. Provisions were also made during the year for quality checks to be made on the water in the new paddling pool at Queens Park. Periodic bacteriological tests were made on ice cream to assess its hygienic quality.

Air pollution assessment resulted in the findings for the year showing a very small increase in the average smoke level, so small an increase that the position might be assessed as really representing a status quo as compared with the previous year. The sulphur dioxide figures did show a slight reduction. Included in this report is a graph showing the seasonal influence on smoke and sulphur dioxide over the past four year period. This also shows the relationship of certain minor pollutants (polycyclic hydrocarbons) to the general pollution levels of smoke and sulphur dioxide.

The laboratory functions primarily to serve the requirements of the Health Department and the Waterworks Department, but the general public also avail themselves of the facilities provided. Many and varied are the types of samples brought along to the Health Department as consumer complaints.

Private samples, for which payment is made to the local authority, were examined for private individuals and local firms. These included such diverse materials as samples of timber, hide, preservation fluids for timber and stone-work, tablets, pie-fillings, dried fruit, dog food, milk etc.

A number of samples were examined for other departments of the local authority. Contract samples were examined for the Education and Parks Departments; a variety of tablets were examined for the Borough Police; and the Museums Department sent in for examination some adhesive material from an Egyptian Stone Tablet removed from a very ancient tomb earlier this century. Oil samples were examined for the Borough Architect's Department.

In addition a number of samples were examined for neighbouring local authorities.

At the time of the 1966 Health Committee Annual Inspection, the Mayor and Mayoress, the Chairman and Committee members visited the laboratory and showed particular interest in some of the more recently acquired analytical apparatus.

During the year your analyst arranged laboratory visits for students from local colleges and schools and gave talks to certain local organisations and guilds. Talks were given also to the Borough Police on certain aspects of the use and misuse of drugs.

In presenting this my fifth Annual Report to the Chairman and members of the Health Committee I have pleasure in recording my gratitude for the loyal service of members of the laboratory staff. Acknowledgement is also due and readily given to personnel of the Waterworks Department, the Public Health Inspectorate and secretarial staff of the Health Department for their assistance and co-operation.

The work of the laboratory has as usual had the encouragement, support and interest of the Medical Officer of Health, and for this my thanks are expressed.

New and Proposed Legislation

Some very important new legislation on food was expected during 1966 which did not in fact appear. A new Labelling of Food Order expected to replace the amended 1953 Order did not reach the stage of being issued as new legislation during 1966, although it now appears that it will be in being in 1967. Many Public Analysts have long awaited the proposed legislation on such important items as the meat content of canned meat products but 1966 did not produce any developments in the statutory control of this class of food.

Certain new legislation came into being in 1966 and further proposals for new legislation were issued. Some of these which have a bearing on the work of the laboratory are set out below.

The Skimmed Milk with Non-Milk Fat (Amendment) Regulation, 1966

These regulations came into operation on 22nd July, 1966. They extend to one particular manufacturer certain labelling exemptions with reference to a specified liquid product. Similar labelling exemptions were made to other specified products by the Skimmed Milk with Non-Milk Fat Regulations, 1960.

The Salad Cream Regulations, 1966

These regulations came into operation on 19th September, 1966. They re-enact with amendments the Food Standards (Salad Cream and Mayonnaise) Order, 1945.

The regulations specify :

- (a) Compositional requirements regulating the amount of vegetable oil and egg yolk solids contained in salad cream.
- (b) Requirements for the labelling and advertisement of salad cream.

The Butter Regulations, 1966

These regulations come into operation on 1st September, 1967. They supersede the Food Standards (Butter and Margarine) Regulations, 1955 insofar as these regulations apply to butter.

The regulations specify :

- (a) Compositional requirements regulating the amount of milk fat, milk solids and moisture in butter, including salted and unsalted butter.
- (b) Requirements for the labelling and advertising of butter.

Mineral Hydrocarbon in Food Regulations, 1966

These regulations came into operation on 27th August, 1966. These regulations supersede the previous (1964) regulations. They prohibit the use of mineral hydrocarbons in food (with certain special exceptions), and revised specifications are made for mineral hydrocarbons which may be added to certain foods in regulated amounts.

The Colouring Matter in Food Regulations, 1966

These regulations come into operation on 26th June, 1967. They re-enact with amendments the existing 1957 regulations. The principal changes are :

- (a) Six coal-tar colours are deleted from the present permitted list.
- (b) Coal-tar colour Black 7984 is added to the permitted list.
- (c) Specifications of purity are laid down wherever these have been formulated.
- (d) Meat, game, poultry, fish, fruit and vegetables in a raw or unprocessed state may not contain added colour (exceptions are made for the skins of oranges and the husks of nuts). Colouring is prohibited in tea, coffee, white bread and soda bread, cream, condensed milk or dried milk.
- (e) The addition of colour to butter, cheese and other sorts of bread is restricted.
- (f) Solvents and diluents for colours must not contain more than prescribed levels of arsenic, lead and copper.
- (g) Exemption from the regulations is made for colouring matter or coloured food sold for laboratory test purposes provided it is appropriately labelled.
- (h) The declaration to be made on colouring matter when sold as such is laid down.

The Antioxidant in Food Regulations, 1966

These regulations which came into operation on 9th December, 1966, effect the following principal changes from the 1958 regulations. :

- (a) Antioxidants are prohibited in food for babies and young children.
- (b) Ethoxyquin is permitted on apples and pears up to 3 parts per million.
- (c) Preparations containing more than 100,000 I.U.'s Vitamin A per gram are permitted to contain 10 parts per million of butylated hydroxyanisole or butylated hydroxytoluene or a mixture of both for every 1,000 I.U.'s Vitamin A per gram.
- (d) Specifications for permitted antioxidants have been laid down.

The Cheese (Amendment) Regulations, 1966

Proposals for amendment of the Cheese Regulations 1965, were made during 1966, and these were followed by the issue of amendment regulations.

The 1966 (Amendment) Regulations, which come into force on 1st February, 1967, include a requirement for certain types of processed cheese to comply with prescribed compositional standards, or to bear prescribed statutory description or declaration. Minimum milk fat and moisture contents are laid down for an additional range of cheeses, and certain labelling requirements required by the Cheese Regulations, 1965, are postponed until February, 1970.

Proposals for Regulations on Fish and Meat Spreadable Products

The main proposals of this report are:

- (i) the minimum meat content of meat pastes should be raised from 55% to 70%; this would raise it to the same level as the minimum fish content of fish paste.
- (ii) A minimum meat content of 95% is required for potted meat, chopped meat, flaked meat and minced meat.
- (iii) Chopped meat in jelly and similar designation require to have a meat content of not less than 80%; a brawn should contain not less than 60% meat.
- (iv) A description of a product as containing butter will require that not less than 6% butter-fat is present; the combined meat and butter-fat content should be not less than 96%.

Proposals along similar lines are made with reference to the sale of fish paste, and labelling and advertising of these products is regulated.

Report on Cyclamates

In this report the Food Additives and Contaminants Committee were of the opinion that there would be no risk to health in allowing the use of cyclamates in food without statutory limitation except for that already laid down in The Soft Drinks Regulations, 1964.

Report on Flavouring Agents

It was earlier proposed that the addition of flavourings to food should be controlled in the first instance by means of a prohibited list of flavourings. In considering this proposal, the Ministry have decided that a better course would be to delay making legislation until a permitted list of flavourings, established on a sound scientific basis, could be drawn up. As it is of course an offence to add any substance to food which makes the food injurious to health, the public are not liable to have noxious flavourings added to their food while a permitted list is being prepared.

Report on Solvents

A report by the Food Additives and Contaminants Committee on solvents in food was published in February, 1966. This was followed in November, 1966 by Ministry proposals for regulations on Solvents. The principal proposal is that there should be only nine specified solvents allowed, and the proposals include regulations relating to the labelling, advertisement and sale of solvents.

Report on Claims and Misleading Descriptions

In 1964, the Food Standards Committee issued a general report on the labelling of food. The report, issued in August, 1966, deals particularly with claims and misleading descriptions as applied to food.

The report recommends that more controls should be made on the various types of claims made for food. It is also suggested that certain words as applied to description of food should be restricted in use, and that regulations should be made on the use of pictures in labels and advertisements relating to food.

Circular relating to Approved Chemical Agents

A circular was issued by the Ministry in November, 1966, relating to an approved list of chemical agents for the cleansing of containers and appliances used for bulk milk in accordance with Regulation 27(6)(a) of the Milk and Dairies (General) Regulations, 1959.

Total Number of Samples Examined

The number of samples examined during the year was 7,787. This number includes milk samples separately classified as designated milks, and milks upon which special tests for antibiotic substances have been carried out.

The numbers examined during the past five years are shown below :

1962	..	..	..	..	5,959
1963	..	..	..	..	6,928
1964	..	..	..	..	8,058
1965	..	..	..	..	7,858
1966	..	..	..	..	7,787

The slight decrease in the number of samples compared with the previous year is mainly due to a slight decrease in the number of food and drug samples examined. The classification of the samples is shown below :

FOR THE HEALTH COMMITTEE:

Food and Drugs	..	..	..	..	..	..	1,072
Designated Milks	..	..	..	..	..	..	356
Milks for Antibiotic Tests	..	..	..	..	..	..	147
Ice Creams (bacteriological examination)	..	..	..	..	..	..	35
Water for domestic premises (Bolton area)	..	..	..	..	..	..	48
Water from Public Swimming Baths	..	..	..	..	..	..	133
Fertilisers and Feeding Stuffs	..	..	..	..	..	..	28
Miscellaneous Samples	..	..	..	..	..	..	111
Air Pollution:							
Smoke and Sulphur Dioxide concentrations-							
Samples from Local Authority Testing							
Stations	..	..	..	..	..	..	2,907
Polycyclic Hydrocarbons	..	..	..	..	..	..	60
FOR THE WATERWORKS COMMITTEE	..	..	..	..	..	..	2,775
FOR OTHER DEPARTMENTS, OTHER AUTHORITIES AND							
PRIVATE SAMPLES	..	..	..	..	..	..	115
							<hr/>
TOTAL	..	..	..	..	..	..	7,787
							<hr/>

Food and Drug Samples

The number of foods and drugs submitted by the sampling officers during the year was 1,072 which is equivalent to a sampling rate of 6.7 per 1,000 of the population.

The number of samples reported as adulterated or otherwise unsatisfactory was 81, a proportion of 7.6 per cent. This figure is very similar to the proportion of unsatisfactory samples reported in the previous year, (7.45 per cent in 1965).

Of the unsatisfactory samples 42, that is approximately half of the total number, were samples of milk. As a large proportion of these were genuine milks of poor or sub-standard quality they are separately classified later in this report.

The amount of fraudulent deliberate adulteration of foods and drugs in this country is of course very small. A striking case of this type was met with during the year in a sample of Mustard Oil. This oil is in general use throughout India as an edible oil. This and many other foods virtually unused by the natives of the British Isles have a ready market for sale to the large Asian population now established in this country. One sample of mustard oil was grossly adulterated with mineral oil (not less than 47 per cent mineral oil); further details of this are listed under Table B of this report.

With reference to the use of unusual substances as food or as flavourings in food, it was with surprise that it was found that *Asafetida* has a limited demand as a flavouring substance. The sample that was examined was entirely genuine in quality. It is a type of gum-resin obtained from the root of the plant *Ferula foetida*. It is perhaps polite to describe its very strong smell as fetid; some describe it as a pungent decomposing dung-type odour and indeed one synonym for the substance is "Devil's Dung". *Asafetida* used to find a limited application in pharmacy as a *Materia Medica* substance. Years ago, largely on account of its very nasty taste, it was used to control hysterical and other mental disturbances. Some doctors of yore were of the opinion that it was a useful substance to prescribe for malingering! However, apparently we now have those in the community who find the judicious admixture of this evil-smelling and evil-tasting substance just the right thing to add piquancy to their particular curry.

The year 1966 was the first one when the laboratory had facilities throughout the year for carrying out analyses using gas-liquid chromatography. Some time was required in establishing the technique required for using this new laboratory tool. The main feature of the equipment is the ease with which exceptionally minute amounts of many of the chlorinated pesticides can be detected and measured in food. For this reason the levels of chlorinated pesticides found are not recorded in parts per million but as parts per 1,000 million (p.p.10⁹).

Forty one samples were subjected to the elaborate extraction (clean-up) procedure which is necessary as a precursor to the use of equipment for detection and measurement.

In 15 of these one or more chlorinated pesticides were shown to be present, that is thirty seven per cent of the samples tested contained traces of pesticide material.

In appraising the results obtained two points clearly emerge. The proportion of foods containing pesticides was quite appreciable, nearly two-fifths of the total, and secondly the amounts found were indeed very small. In no case did the level of pesticide found anywhere near approach a level which could be classified as an unsatisfactory level.

Nine of the samples in the series were examined with reference to the National Survey on pesticides in food. The other 32 samples were normal samples submitted under the Food and Drugs Act.

A summary of the pesticide result is shown below and this is followed by Table A which lists all of the Food and Drug samples examined during 1966.

The following samples examined for pesticides were shown to be free from any organic pesticide residues. Where more than one sample was examined the number examined is shown in brackets after the name of the article.

Apples (5)*	Food wrapper**
Baby Food	Milk (2)
Breakfast Cereal	Peas (4)
Carrots (4)	Potatoes (3)
Cucumber (3)	Sprouts (2)

*Two samples of apples were shown to contain lead and arsenic. In neither case was the amount such that the official regulations limiting the amounts of these substances in food were contravened.

**Type of food wrapping suspected to have been treated with insecticide.

The samples listed below were shown to contain trace amounts of organic pesticide residues. The amount in some cases would perhaps be better described as exceptionally minute trace amounts, the detection and measurement being the consequence of the extremely high sensitivity of the instruments used for determination of chlorinated pesticides.

Although it is customary to express the amounts of traces of contaminants in food in parts per million, the following tabulated data is expressed in PARTS PER THOUSAND MILLION.

Sample		Types of Pesticide and Amount of Pesticide parts per 1,000 million			
		Aldrin	B.H.C.	Dieldrin	D.D.T.*
Beef	(a)	-	7	6	67
(3 samples)	(b)	-	7	2	48
	(c)	-	1	7	4
Breakfast Cereal		-	-	-	100
Carrots		13	-	-	-
Grapes	(a)	-	-	-	39
(3 samples)	(b)	-	-	-	106
	(c)	-	-	-	183
Herbs (medicinal)		-	2	23	27
Lard	(a)	-	1	-	42
(5 samples)	(b)	-	2	< 1	536
	(c)	-	<1	26	88
	(d)	-	<1	6	45
	(e)	-	<1	-	148
Milk		-	<1	-	-

*The amount of D.D.T. indicated includes, where present, breakdown products of D.D.T. (D.D.E. and T.D.E.).

TABLE A
Samples Examined under the Food and Drugs Act

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Milks	193	379	572	41	1	42
Ale Brewing Ingredients	—	1	1	—	—	—
Almonds, Ground	—	4	4	—	—	—
Apples	—	5	5	—	—	—
Apricots, Dried	—	1	1	—	—	—
Baking Powders	—	7	7	—	—	—
Barley	—	4	4	—	—	—
Beer, Canned	—	4	4	—	—	—
Biscuits	—	7	7	—	—	—
Blancmange Powder	—	2	2	—	—	—
Bread Mix	—	1	1	—	—	—
Butter	—	9	9	—	—	—
Cake Mixture	—	1	1	—	—	—
Carrots	—	4	4	—	—	—
Cereal and Pulses Mixture	—	2	2	—	—	—
Cherry Syrup	—	1	1	—	—	—
Chocolate Liqueur	1	—	1	—	—	—
Christmas Pudding	—	9	9	—	—	—
Coconut, Creamed	—	1	1	—	—	—
Coconut, Desiccated	—	1	1	—	—	—
Coffee	—	8	8	—	—	—
Coffee Essence	—	1	1	—	—	—
Coffee, Instant	—	1	1	—	—	—
Confectionery	2	2	4	—	—	—
Cornish Mead Liqueur	1	—	1	—	—	—
Cream	—	3	3	—	—	—
Cream, Canned	—	3	3	—	—	—
Crisps, Potato	—	1	1	—	—	—
Cucumber	—	2	2	—	—	—
Currants	—	3	3	—	1	1
Curry, Instant	1	—	1	1	—	1
Curry Powder	2	—	2	—	—	—
Dates	—	2	2	—	—	—
Fish Cakes	4	—	4	1	—	1
Figs, Dried	—	1	1	—	—	—
Fish, Canned	—	6	6	—	—	—
Fish Paste	—	3	3	—	1	1
Food Colours	—	1	1	—	—	—
Food Flavours	—	2	2	—	—	—
Fruit, Canned	—	24	24	—	—	—
Fruit Curd & fruit flavour Curd	—	9	9	—	1	1
Fruit Juice	—	3	3	—	—	—
Fruit, Mixed Dried	—	1	1	—	—	—
Gelatine, Powdered	1	—	1	—	—	—
Gin	1	—	1	—	—	—
Grapes, Fresh	—	3	3	—	—	—
Gravy Browning	—	1	1	—	—	—
Gravy Seasoning	—	1	1	—	—	—
Ham & Chicken Pie Filling	—	1	1	—	—	—
Herbs, Culinary	—	1	1	—	—	—
Horseradish Cream	—	1	1	—	1	1
Instant Tea	—	1	1	—	—	—
Jams and Marmalade	—	17	17	—	—	—
Jelly, Table	—	2	2	—	—	—
Lard	—	5	5	—	—	—
Lentils	—	6	6	—	1	1

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Lolly Mixture	-	4	4	-	-	-
Margarine	-	5	5	-	-	-
Meat Paste etc.	1	14	15	1	2	3
Meat Pie	-	1	1	-	-	-
Meat (Raw Beef)	-	2	2	-	-	-
Milk (Pesticide Residues Tests)	-	3	3	-	-	-
Milk Powder	-	1	1	-	-	-
Milk Top	-	1	1	-	-	-
Mushrooms, Canned	-	2	2	-	-	-
Mustard, French	-	3	3	-	-	-
Nut Mix	-	1	1	-	-	-
Nuts	-	5	5	-	-	-
Oatmeal	-	1	1	-	1	1
Olive Oil & Edible Oils	2	4	6	1	1	2
Paprika	-	1	1	-	-	-
Pastry Mix	-	1	1	-	-	-
Peanuts	-	2	2	-	-	-
Peanut Butter	-	1	1	-	-	-
Peas, Canned	-	3	3	-	-	-
Peas, Dried	-	2	2	-	-	-
Peel, Mixed	-	1	1	-	-	-
Pie Filling	-	8	8	-	-	-
Potatoes	-	2	2	-	-	-
Pudding, Canned	-	1	1	-	-	-
Raisins	-	1	1	-	-	-
Raspberry Syrup	1	-	1	-	-	-
Rice	-	12	12	-	2	2
Sago	-	1	1	-	-	-
Salad Dressings	-	15	15	-	3	3
Salmon, Canned	-	2	2	-	1	1
Salmon, Potted	1	-	1	1	-	1
Sauces	-	3	3	-	-	-
Sausage	14	-	14	7	-	7
Savoury Stuffing, Dried	-	5	5	-	-	-
Semolina	-	2	2	-	-	-
Shandy	-	6	6	-	-	-
Soft Drinks	2	25	27	-	5	5
Soup, Dehydrated	-	1	1	-	-	-
Soya Beans	-	1	1	-	-	-
Spam	-	1	1	-	-	-
Spinach, Canned	-	1	1	-	-	-
Sponge Roll	-	1	1	-	-	-
Stout	-	3	3	-	-	-
Sugar	-	3	3	-	-	-
Sugar, Brewing	-	7	7	-	-	-
Sugar Confectionery	7	6	13	-	-	-
Sultanas	-	3	3	-	1	1
Tapioca	-	2	2	-	-	-
Vegetables, Dried	-	1	1	-	-	-
Vinegar	2	6	8	-	-	-
Vodka	1	-	1	-	-	-
Whiskey	1	-	1	-	-	-
Wines	13	-	13	-	-	-
Analgesic Tablets	1	14	15	1	-	1
Antacid Tablets	-	1	1	-	-	-
Antibortin Capsules	1	-	1	-	-	-
Blood Mixture Tablets	-	1	1	-	-	-

Article	Number Examined			Number Adulterated or otherwise giving rise to irregularity		
	Formal	Informal	Total	Formal	Informal	Total
Bronchial Lozenges	-	1	1	-	-	-
Bronchial Mixture	-	1	1	-	-	-
Carmil	-	1	1	-	-	-
Cough Mixture	-	4	4	-	-	-
Damiana Tablets	1	-	1	-	-	-
Diocalm	-	1	1	-	-	-
Doriden Tablets	1	-	1	-	-	-
Energy Tablets	1	1	2	-	-	-
Ephedrine Hydrochloride Tablets	-	1	1	-	-	-
Esidrex Tablets	1	-	1	-	-	-
Foot Paste	-	2	2	-	1	1
Halibut Liver Oil Capsules ..	-	1	1	-	-	-
Herbs, Medicinal	-	2	2	-	-	-
Hydrosaluric Tablets	1	-	1	-	-	-
Kolantyl Tablets	1	-	1	-	-	-
Lenium Cream	-	1	1	-	-	-
Lysivane Tablets	1	-	1	-	-	-
Metamsustac Tablets	1	-	1	-	-	-
Ointments & Medicated Creams	-	24	24	-	1	1
Potensan Tablets	1	-	1	-	-	-
Preludin Tablets	1	-	1	-	-	-
Ritalin Tablets	1	-	1	-	-	-
Sparine Tablets	1	-	1	-	-	-
Stimulant Capsules and Tablets	-	3	3	-	-	-
Tincture of Iodine	-	5	5	-	1	1
Tonic Nerve Syrup	-	1	1	-	-	-
Travel Sickness Tablets	-	1	1	-	-	-
Valestril Tablets	1	-	1	-	-	-
Vitamin Preparations	3	1	4	2	-	2
Yeast Extract Mixture	1	-	1	-	-	-
TOTAL	270	802	1,072	56	25	81

Total No. of Samples analysed during the year = 1,072

Total No. of Samples adulterated — 81 = 7.6%

TABLE B

Unsatisfactory Samples of Foods and Drugs

(1) UNSATISFACTORY FOODS

(a) MILK

The Annual Report for 1965 remarked upon the significant increase in the number of milk samples which were of poor quality. Again in 1966 this was a notable feature in that of 42 milks reported as unsatisfactory, 36 were unadulterated milks which failed to reach the presumptive minimum standards of 8.5 per cent of non-fat milk solids, or 3 per cent of milk fat; or failed to reach the presumptive minimum standards in both non-fat milk solids and milk fat. These sub-standard milks which were shown to be free from extraneous water by the results of freezing point determinations accounted for 6.3 per cent of the milk samples examined for quality. Five milk samples contained antibiotic and one contained a small amount of extraneous water.

The results for the year compared with the previous three years are set out in the table below:

Unsatisfactory Milks, 1963-1966

Total No. Milks Year	No. unsatis- factory	No. sub- standard	Type of adulteration	% unsatis- factory	% adulter- ated	% sub- standard
1966 .. 572	42	36	5 contained antibiotic substance 1 contained extraneous water	7.3	1.0	6.3
1965 .. 666	37	34	2 milks adulterated by abstraction of fat 1 failed pasteurisation test	5.6	0.5	5.1
1964 .. 662	8	8	No adulterated samples	1.2	0	1.2
1963 .. 595	11	8	3 contained extraneous water	1.8	0.5	1.3

In all cases where the milks were shown to be genuine milks of poor quality the sampling officer notified both the producer of the milk and the regional advisory official of the Ministry of Agriculture, Fisheries and Food so that remedial measures could be put in hand to improve the quality of the milk.

One milk sample contained not less than 0.5 per cent extraneous water as calculated with reference to a freezing point of -0.530°C . This milk was part of a consignment in churns. Reference to the freezing points of the milks forming the remainder of this consignment indicated that the watered milk may have contained 2.3 per cent of added water. Another sample of the same consignment of separate churns of milk contained 0.09 International Units per millilitre of penicillin. The supplier was prosecuted both for the extraneous water and for the presence of penicillin and was fined £10 plus 3 guineas costs for each offence.

Four other samples contained penicillin. Of these one contained only the minutest trace, 0.01 I.U. per ml., an amount which is at the limit of sensitivity of the test employed.

Another sample contained ten times this amount (0.10 I.U. per ml.), but the resulting prosecution failed due to a legal technicality as the summons had not been served within the specified period.

Two other samples also contained penicillin. These contained respectively 0.10 and 0.06 I.U. per ml. In this case a prosecution did not result as the farmer protested that he had not used at that time any intramammary injections of penicillin. The farmer reported that one cow in his herd had received intramuscular injections into the rump on the day preceding sampling and on the day of sampling. The veterinary officer concerned claimed that there was no warning issued by the manufacturer of the veterinary penicillin used for intramuscular injection that the use of the product necessitated withholding of the milk from sale when used on dairy cows. Enquiries of the Association of Pharmaceutical Manufacturers elicited the information that although all penicillin for intramammary injection had been appropriately labelled since 1963, even by November, 1966, there was still one leading manufacturer producing veterinary penicillin for other than intramammary injection which contained no warning whatsoever that its use for milking cows would necessitate withholding milk from the treated animal for sale for an appropriate period.

Recently it has been noted that procaine penicillin in an oily base, designed to give prolonged levels of penicillin in the udder after intramammary infusion, is now available to the veterinary profession. This particular preparation gives the following cautionary warning:

Mastitis treatment - milking cow

"One tube should be inserted into each quarter and repeated in six or seven days if required. Milk from any cow which has been treated should be discarded from the churn during treatment and for fourteen days after the last administration of the drug".

Earlier types of non-oily penicillin for intramammary use have been discharged from the udder much more quickly so that the farmer has not had to withhold milk from treated cows for more than three days.

Of the 147 samples of milk tested for antibiotics five gave positive results. No other antibiotics other than penicillin were found. The percentage of milks tested which contained penicillin was 3.4 per cent, by no means an inconsiderable proportion. Medical evidence suggests very strongly that it is highly undesirable for the general public to be subjected to the intake of trace amounts of penicillin or other antibiotics in their milk supply.

(b) OTHER FOODS:

SAUSAGE

Although at present there are no legal standards for sausages it has long been the practice for public analysts to require that pork sausages shall contain not less than 65 per cent of meat and that beef sausages shall contain not less than 50 per cent of meat. Also it is necessary to stipulate that fat in a sausage should be attributed to meat only up to 50 per cent of the total meat content by weight. In the absence of such a limitation regarding fat content there could be products marketed which consisted largely of fat trimmed from meat, water, cereal and seasoning with very low protein content.

Legal requirements appertaining to sausages regulate the preservative content. It is permissible to add sulphite preservative to sausage up to a maximum amount of 450 parts per million as sulphur dioxide, providing the preservative is appropriately declared. This means suitable labelling of sausages sold pre-wrapped, and the display of a suitable notice in premises where the sausages sold are not pre-wrapped.

Four samples of sausages were reported as unsatisfactory in that although they had a satisfactory meat content they contained sulphite preservative without appropriate declaration. None of these contained sulphur dioxide in excess of 450 parts per million.

One sample of pork sausage contained 64 per cent of meat, slightly less than the required minimum, and an additional amount of $6\frac{1}{2}$ per cent of fat. It also was unsatisfactory in that it contained 29 p.p.m. of sulphur dioxide from sulphite preservative without appropriate declaration.

A sample of beef sausages contained only $20\frac{1}{2}$ per cent of lean meat and $36\frac{1}{2}$ per cent of fat. This was 18 per cent deficient in lean meat and contained 270 p.p.m. of sulphur dioxide from sulphite preservative which had not been declared.

Another sample of beef sausage contained 23 per cent lean meat and 30 per cent of fat, accordingly assessed as containing 46 per cent total meat with 7 per cent additional fat.

The vendors of these sausages were warned regarding the standards required.

CORNERD BEEF WITH CEREAL

Two samples fell slightly short of the requirements for meat content. They contained 76 per cent and $77\frac{1}{2}$ per cent of meat respectively. In my opinion the minimum permissible total meat content for a product of this type is 80 per cent meat.

IRISH STEW

The can in which this was sold had a double ended swell. The internal lacquered surface of the can was in excellent condition; there was no evidence of metallic corrosion. On opening there was evidence of incipient bacterial spoilage. This was unfit for human consumption. The sampling officer inspected the remaining stocks, all of which were satisfactory. This appeared to be an isolated can which had not been correctly sterilised during manufacture.

FISH PASTE

A sample of Pilchard and Tomato fish paste contained $67\frac{1}{2}$ per cent by weight of fish. The statutory minimum fish content required is not less than 70 per cent fish. The manufacturers were required to account for any possible reason for the deficiency and reminded of the statutory requirement.

FISH CAKE

The Food Standards (Fish Cakes) Order, 1950 requires that not less than 35 per cent fish shall be present in a fish cake. This sample failed to reach this minimum standard in that it contained 33 per cent fish.

Three other samples of fish cakes sampled at the same time from different vendors contained 50 per cent, 52 per cent and 40 per cent of fish respectively.

POTTED SALMON (sold loose)

This comprised 92 per cent by weight of salmon. In my opinion food sold under this name should contain a minimum of 95 per cent by weight of salmon. This food has been prepared from salmon containing very little natural colouring matter. Two synthetic dyes had been added; both were permitted food colours but the amount of added dye was grossly excessive. The intensely orange-coloured salmon contained at least five times as much dye as would have been necessary to produce a pleasing salmon colour.

The manufacturer was informed of the minimum fish content required, and warned regarding the excessive use of food colouring.

CANNED SALMON

This was described on the label as "Medium Red". This salmon was a compressed mass of small fragments of salmon flesh, all of which was of a very pale colour. The description of this foreign product was considered inappropriate and the importer wholesalers were notified accordingly.

ORANGE DRINKS	Twenty five orange drinks of the type to be consumed after dilution were examined. Five of these samples were slightly deficient in the amount of soluble carbohydrate sweetening matter required by the Soft Drinks Regulations, 1964. The matter was taken up with the manufacturers.
FRESH EGG MAYONNAISE	This was a German product which claimed "Fat 80%, New Laid Whole Eggs 15% and Spices 7%" - a total of 102 per cent. This was a good quality product containing 80.4 per cent edible oil and fat and 13.5 per cent whole egg. The label omitted the acetic acid present. The distributors of this imported product were notified of the labelling amendments required.
"THOUSAND ISLAND" DRESSING	This was edible oil emulsified with egg which contained tomato, peppers, cucumber and spices. The list of ingredients on the label was incomplete and did not comply with the requirements of The Labelling of Food Order, (1953).
HORSE RADISH CREAM	Two samples of this particular product were examined. In my opinion the product should be described as Horseradish Sauce. The product contained a proportion of skimmed milk but no cream or butter fat. Although the product was compositionally in accord with a Trade Code of Practice issued in 1952 it is my opinion that this Code of Practice requires revision. There are products on the market which are described as Horseradish Cream which do in fact contain butter fat. It is my opinion that Horseradish Sauce is a fair description of a product the dairy food content of which is limited to skimmed milk solids.
INSTANT CURRY	It was considered that the name of this article was misleading. Flour was the major ingredient - a suitable name for the product would be "Curry Sauce Mix". Objection was made to the word "Instant" on the label as the mixture in the packet required a cooking process to produce a curry sauce. The manufacturers agreed to the labelling changes required, but the subsequent protracted correspondence with the manufacturers has not so far resulted in labelling modifications which are regarded as completely satisfactory.
LENTILS	The lentils were contaminated with live mites. The stock was withdrawn from sale and destroyed by incineration.
PATNA RICE (2 samples)	Both samples were contaminated with live mites; the stock was withdrawn from sale and destroyed by incineration.
OATMEAL	This was heavily contaminated with live mites and contained clumps of insect webbing. The stock was withdrawn from sale and destroyed by incineration.
DRIED CURRANTS	The sample was wet in appearance and had a moisture content of 32.1 per cent by weight. On receipt the sample had an unsatisfactory odour of fermentation.
SULTANAS	This sample, from the same source as the above sample, was excessively sticky and moist. It contained 28.1 per cent by weight moisture but there was no evidence of fermentation. Both the above samples were sampled at one source where dried fruit was sold to the public and also used in the adjacent bakery. It was claimed that the fruit had been washed immediately prior to sampling. The vendor was warned of the evidence of slight fermentation which had no doubt resulted from prolonged soaking of the currants.

LEMON CURD

This sample failed to reach the minimum standard of 65 per cent of soluble solids required by the Food Standards (Preserves) Order, 1953. In this case the soluble solids content was 64.6 per cent. This was not a "home-made" type preserve, but the product of a very large scale manufacturer. It was found that the recipe for the product allowed for ingredients in amount such that the product would only just comply with the minimum levels of ingredients required by law. On starting the plant after cleansing there was residual water present such that the first batches of preserve produced did not reach the required standard. The manufacturer made arrangements to prevent further distribution of sub-standard preserves.

LINSEED OIL

Although one usually associates this oil with the formulation of paints, this canned product, packed and labelled in Germany, was sold as an edible oil. It was shown to be linseed oil of satisfactory quality.

A small attached paper label in English stated the name of the article, the volume contents and the distributor's name and address. Most of the labelling in German would be unintelligible to the average English purchaser although the word "Vitaminreiches" meaning vitamin-rich would no doubt be generally taken to mean that a vitamin content was indicated.

The Labelling of Food Order, 1953 prohibits general claims for vitamins and requires that claims for specific vitamins should be declared in a prescribed manner.

This is an example of the unusual type of substances to be found in "Health Food" stores. As unsaturated oils, of which linseed oil is an example, are supposed to reduce the blood cholesterol level, then it is thought by some that the ingestion of such oil reduces the possibility of coronary thrombosis. This "food" would be quite unpleasant to eat, even if well mixed with other food to help disguise the strong linseed oil taste and odour.

The importer of this product was notified of the labelling requirements necessary.

MUSTARD OIL

This oil would have little attraction as a food by the native inhabitants of this country but mustard oil is extensively used as a food in India, and therefore there is a market for it in this country as a food by the immigrant asiatic population.

Two samples packed by different suppliers were analysed. One was a good quality genuine sample of mustard oil. The other sample was grossly adulterated with mineral oil. It contained not less than 47 per cent mineral oil.

The adulterated sample was sold at a local asiatic food store. In the resulting prosecution the Vendor pleaded not guilty and joined the wholesaler in the action by means of a further summons. It was expected that the wholesaler would have further joined the bottlers of the oil in the action by yet a further summons. However the latter was not the case. The wholesaler, an Indian trading from premises in the Midlands, pleaded guilty to the offence and was fined £15 plus £6 6s. costs.

(2) UNSATISFACTORY DRUGS

TABLETS OF ASPIRIN & CALCIUM SUCCINATE

These contained the required amounts of the two active ingredients but the content of free salicylic acid present (5 mg. per tablet) was regarded as unsatisfactory.

FOOT PASTE

This contained 33 per cent of salicylic acid, precisely the amount declared on the label. Black staining of the product had occurred due to corrosion of the tinplate container. Stocks of this were withdrawn from sale.

BABY CREAM

This was compositionally satisfactory. The manufacturer's attention was drawn to the incorrect spelling of the name of one of the active constituents declared on the label of the product.

**DECOLOURISED
SOLUTION OF IODINE,
B.P.C. 1934**

This product made to an old "official" formula contained an appropriate amount of iodine but the ammonia content was only two thirds of the amount specified. It appeared that loss of ammonia had occurred on storage. The sample was from old stock. The remainder was withdrawn from sale.

**SUSTAINED RELEASE
VITAMIN A TABLETS**

These were compositionally satisfactory. The recommended dose rate as a dietary supplement was regarded as grossly excessive. (Tablet strength, 25,000 International Units per tablet). The manufacturers agreed to amend their labels as the tablets were clearly designed for therapeutic use in cases of Vitamin A deficiency and not suitable as a normal food supplement.

LECITHIN CAPSULES

The amounts of Vitamin A and Vitamin E present were found to be satisfactory. Objection was made to the claims for mineral constituents printed on the label. The amounts of such minerals were not stated. This was a German product. A leaflet accompanying the sample was a very poor English translation of the original German, much of which was barely intelligible. The distributor of this product agreed to carry out the necessary amendments to both the label of the container and the leaflet accompanying this drug.

Milk Samples

Five hundred and seventy two samples of milk were analysed during 1966; 193 of these were taken as formal samples and the other 379 were informal samples. Details of the milk samples which were unsatisfactory are given in the list of unsatisfactory samples of Food and Drugs.

The following table shows the average composition of the milks examined during each quarter, and the yearly average (excluding one sample of Channel Island Milk).

	No. of Samples	Fat %	Solids-not-fat %	Water %
1st Quarter, 1966	143	3.60	8.57	87.83
2nd „ „	126	3.62	8.63	87.75
3rd „ „	140	3.70	8.73	87.57
4th „ „	162	3.82	8.72	87.46
For the year 1966	571	3.69	8.66	87.65
For the year 1965	666	3.71	8.74	87.55
For the year 1964	662	3.72	8.80	87.48

Designated Milks

In addition to chemical analyses, designated milks are subject to tests which are specified in the Milk (Special Designation) Regulations.

These tests include the Methylene Blue Test which is a measure of the keeping quality of the milk, the Phosphatase Test which is a check on the efficiency of the pasteurisation process and the Turbidity Test which functions as a check on the heat treatment given to sterilised milk.

Examination of Designated Milks

Designation	No. Examined	Satisfactory	Failed Meth. Blue Test	Failed Phos. Test	Failed Turbidity Test	Test Void
Pasteurised	188	188	0	0	—	—
Sterilised	167	167	—	—	0	—
TOTALS ..	355	355	0	0	0	—

The above samples included 90 samples of pasteurised milk taken from the supplies to local schools. The results obtained were entirely satisfactory.

Antibiotics in Milk

One hundred and forty seven milks were tested for the presence of antibiotic substance and of these five were shown to contain penicillin.

Ice Cream Samples

These samples are collected in sterile containers, special precautions being taken to preclude contamination occurring during sampling; they are then subjected to a Methylene Blue Test in order to assess their relative hygienic qualities. Under the conditions of the test, samples which decolourise the Methylene Blue solution in $4\frac{1}{2}$ hours or more are classified as Grade 1; those which decolourise the solution in $2\frac{1}{2}$ to 4 hours as Grade 2; in $\frac{1}{2}$ to 2 hours as Grade 3; and those decolourising the solution instantly (0 hours) as Grade 4.

Samples categorised as Grade 3 or 4 are classified as of an unsatisfactory standard.

The samples are also examined for organisms of intestinal origin, the presence of which is regarded as evidence of undesirable contamination.

Methylene Blue Test for Ice-Creams

	No. of Samples	Satisfactory	Unsatisfactory	Methylene Blue Grading			
				1	2	3	4
Sold wrapped	8	8	0	8	0	0	0
Sold loose	27	19	8	13	6*	4	4
TOTALS ..	35	27	8	21	6	4	4

*Two of the ice creams sold loose which were categorised as being of satisfactory methylene blue grading were unsatisfactory in that they contained large numbers of coliform bacteria. Two of the ice creams categorised as methylene blue grade 4 also contained coliform bacteria of intestinal origin.

From the tabulated figures it is apparent that there is clearly room for improvement in the hygienic quality of the ice cream which is sold loose.

Domestic Water Supplies

Samples of water from private houses have been collected from the town and district during the year. The results obtained from bacteriological analyses show that a safe and satisfactory quality standard has been maintained throughout.

Samples were similarly collected from domestic premises in the Bury, Rawtenstall, Bacup and surrounding districts. Reports on the examination of these were issued to the Waterworks Engineer.

Swimming Bath Waters

The efficiency of the water treatment process at each of the public swimming baths was regularly assessed by means of bacteriological analyses supplemented with chemical tests. Where abnormalities were detected recommendations were made and further tests conducted to ascertain that conditions were restored to the high quality standard typically maintained. Similar analyses were carried out on samples of water from the swimming baths at local schools. The results obtained show that suitable treatment conditions and satisfactory water quality have been maintained.

Fertilisers and Feeding Stuffs

Twenty eight samples of fertilisers and feeding stuffs have been examined, and of these two samples of feeding stuffs and three samples of fertilisers were not in accord with the particulars of composition accompanying the sale. Details of the latter samples are given below:

Feeding Stuffs

HIGH RECORDER CAKE	This contained excess protein, not to the detriment of a purchaser.
HYBRID LAYERS CONCENTRATE	This contained oil in excess of that permitted by the officially prescribed limits of variation, not to the prejudice of a purchaser.

Fertilisers

GROWMORE FERTILISER	The content of phosphoric acid insoluble in water was not in accord with the particulars given in the Statutory Statement accompanying the sale. The total phosphoric acid present in the sample was present in amount such that there would be no prejudice to a purchaser.
SUPERPHOSPHATE	The phosphoric acid soluble in water was present in excess of that permitted by the prescribed limits. The quality was not to the prejudice of a purchaser.
PROCESSED SEWAGE MANURE	This product did not come within the scope of the official regulations governing the sale of fertilisers.

A leaflet accompanying this manure claimed among other things that it contained about 45 per cent of organic matter. Analysis showed the organic matter content to be only 32.8 per cent, very appreciably less than the amount claimed. The manure contained an excessive amount of ash. It appeared that a preliminary operation in the processing involved drying on a bed of ashes, and that a considerable amount of ashes found their way into the finished product.

Air Pollution

In each of the years 1961, 1962, 1963 and 1964, the year's accumulated analytical data on the average level of local smoke pollution showed a quite distinct decrease compared with the previous year. In 1965, the results showed a slight reversal of this desirable state of progress, and the results for the year 1966 showed what more or less amounts to a status quo. The average smoke level in terms of micrograms per cubic metre of air was 161 for 1965; the figure for 1966 was almost the same at 164.

However, in the two years prior to 1966 there was a small but distinct drop in the level of sulphur dioxide in the local air and this trend was continued with a decrease in the sulphur dioxide level during 1966. The figure for 1965 was 179 compared with 163 micrograms per cubic metre of air for 1966.

The results for 1966 do not indicate any very marked progress in the abatement of local air pollution, although if results for the last two years are not only compared with each other, but compared with the levels of pollution obtaining over this particular part of the country some seven years earlier, then it can be seen that although there is room for much improvement, good progress has been made.

								Air Pollution	
								Micrograms per cubic metre of air	
								Smoke	Sulphur Dioxide
1958	..	..	..	..	..	..	..	289	262
1959	..	..	..	..	..	..	..	282	288
1965	..	..	..	..	..	..	..	161	179
1966	..	..	..	..	..	..	..	164	163

The changes in levels of smoke and sulphur dioxide in the air over the period 1958 to 1966 can be seen from the histograms at the end of this report. These are accompanied by tables which show the variations in the level of air pollution at nine different sites in the area of the County Borough. The tables also show the very marked seasonal changes in air pollution.

It has been the practice for some years for the laboratory to carry out determinations of the levels of certain polynuclear hydrocarbons in smoke. One of the polynuclear hydrocarbons measured, 3:4 Benzpyrene is a carcinogenic substance. The measurements of the levels of three polynuclear hydrocarbons are carried out monthly on the accumulated daily smoke stains from five sites within the Borough area. In comparing the results of any particular month with those obtained for any other monthly period the main feature is that there is a marked seasonal pattern. However, this seasonal pattern is

sometimes obscured by abnormal weather conditions. For this reason the results obtained over the past four years have been grouped together, both for the major pollutants (smoke and sulphur dioxide), and for the minor pollutants, the polynuclear hydrocarbons.

The results obtained are shown in the form of a graph at the end of this report. The graph clearly shows how closely the seasonal variations in the major pollutants are followed by very similar changes in the levels of the three polynuclear hydrocarbons. The point clearly emerges that there is a distinct relationship between the smoke concentration and the levels of the three polynuclear hydrocarbons which have been determined.

The histograms at the end of this report show the yearly variations in smoke and sulphur dioxide since 1958.

It is not to be expected that there will be a further appreciable improvement in air pollution, as has been achieved in recent years, unless steps are taken to extend appreciably the area covered by smoke control orders.

Miscellaneous Examinations

A large variety of samples of miscellaneous character and origin are submitted to the laboratories during the course of a year. Many of these originated as complaint samples of food brought in by the general public via the public health inspectors. This miscellany of samples included the following.:

MOULDY FOOD

The following articles of food were contaminated to varying degrees with mould growth:

Canned pineapple slices, canned luncheon meat and cheddar cheese.

INSECTS ETC. IN FOOD

A portion of meat and potato pie contained a spider beetle (*Ptinus tectus*) which had been baked in the pie. Canned processed peas contained an American seed beetle (*Acanthoscelides obtectus*). A bilberry pie contained a Dor beetle (*Geotrupes* species), the colour of the beetle and the bilberries being almost identical. A spider beetle (*Ptinus tectus*) had been baked in a syrup pudding. Another type of pudding, apricot crumble, contained an earwig (*Forficula auricularia*), (£25 fine, £10 10s. costs). Some ground wheat contained live book lice (*Liposcelis granicola*) and live mites. Ground rice from the same source contained live book lice. Canned sliced peaches contained an ant (*Acanthomyops niger*). Canned butter beans were infested with the Mexican bean weevil (*Spermophagus subfasciatus*). An oatmeal sample was heavily infested with live mites, insect webbing and a live larvae of the Mediterranean flour moth (*Ephestia kuehniella*). A Mediterranean flour moth was also present in a can of tomatoes. Two separate samples of frozen

peas from different packers each contained a black slug (*Agriolimax agrestis*). A fine of £10, £5 5s. costs was imposed in one case. The Court hearing in the second case had not been held at the time of preparation of this report.

Where dried goods were shown to be infested the remaining stock was withdrawn from sale and destroyed by incineration.

OTHER FOREIGN MATTER IN FOOD

Samples of flour, margarine and a flour margarine mixture were examined with reference to contaminating fragments of glass. The glass was from a glass casserole and not present in the products as purchased. Unpleasant tasting canned grapefruit contained Naringin, a naturally occurring substance present in some grapefruit which confers a very bitter taste to the fruit. The black material in a breakfast food was charred cereal. Nut fragments were examined which were alleged to have been present in a cup of coffee. Strands of steel wool were present in a milk bottle. These were from a pan scourer and not present in the milk as sold. A meat and potato pie had a splinter of wood cooked in it. Desiccated coconut suspected of contamination with rodent droppings contained discoloured vegetable debris, and a cheese sample contained a minute piece of sponge. A sample of corned beef with cereal contained a lump of soft impure lead from the slug of a cartridge. There was no evidence that a piece of twig in a milk bottle was present in the milk when sold. A meat and potato pie contained lumps of glutinous flour coloured with gravy browning. Pastry confectionery was contaminated with dust. Potato crisps contained a feather which had been cooked with the crisps. A sample of corned beef contained small black lumps which were shown to be congealed blood and another contained very dark muscle tissue due to incomplete blood drainage of the meat. A strawberry cream tart contained carbonaceous matter picked up from a dirty baking tray. A loaf of brown bread contained lumps of white dough and dark brown dough indicating inadequate cleansing between successive mixes. A canned meat product showed a trace of iron-staining due to corrosion of the can. A metal fragment had been cooked in a meat and potato pie and a currant tea cake had a fragment of wood baked in it. Pastry from a steak and kidney pie contained small compacted

masses of coloured cotton fibres which had been baked in the pastry. There was no evidence to show that a short length of plastic covered copper wire had been baked in the meat and potato pasty in which it was submitted. Metal particles were present in a bottle in which pasteurised milk had been sold (£10 fine, £5 5s. costs). A meat and potato pie contained a lump of dried plastic emulsion paint and traces of gypsum (plaster). The foreign matter present in a sample of rice was shown to be extraneous seeds. The seeds were leguminous seeds from two types of weed commonly found growing in rice fields. There was very little of the extraneous seeds in the rice and the types of seeds were not poisonous or harmful.

DECOMPOSITIONAL CHANGES ETC., IN FOOD

A "home-made" type butter was appreciably richer in butter fat than the butter typical of mass production. However, the hygienic control of this particular butter was not as stringent as required. The butter was not rancid but it contained a microflora which conferred a strong cheese-like taste and odour to the butter. Canned sardines had undergone partial spoilage prior to canning. Fish cakes cooked as part of a school meal had been prepared from fish much lacking in freshness. The brown discolouration in canned rice was shown to be due to chemical changes which had occurred between the sugar and protein, due to changes taking place following the cooking process and prolonged storage. Alleged sourness in sterilised milk was shown not to be the case; the milk had been over processed and had a marked cooked taste. Canned peaches had an abnormal odour due to very prolonged storage in an unsuitable type can. An orange drink contained an appreciable amount of oxidation products formed from the orange oil in the drink. The formulation of this drink was subsequently modified. A can of corned beef had a fault in the wall of the can which admitted air. The contents had undergone very considerable putrefaction.

ADDITIONAL MISCELLANEOUS FOODS

Not all the samples submitted as complaint samples are justified as such, although in some cases there may be good reason to suspect the sample and so justify an analysis. A case in point was a bottle of Advocaat. This is typically a thick emulsion; the sample comprised the last few ounces in a large bottle and was very "thin" in appearance.

The complainant justifiably suspected the drink to have been watered. Analysis showed a satisfactory alcohol content. The thick egg emulsion had broken down to produce a watery liquid, most probably because the bottle had been stored in a very warm place. Frequently analysis can exonerate a vendor of an alleged fault in a food sample. The only fault in a sample of granulated sugar was very slight dampness. The following articles of food were satisfactory in all respects. Olive oil, brandy, meat and potato pie, two meat pies, parkin, potato puffs, two baby foods, sardines, chewing gum, marzipan and canned soup.

Additional Miscellaneous Examinations

Pencil crayons were examined for lead content, an insecticide was checked for strength of the ingredients, a rodent attractant (rat bait) and also a rat poison were analysed. Two laxative mixtures checked for quality were found to be satisfactory. A cleansing powder and enamelled tea-brewing can were checked for alleged antimony or arsenical poisoning. Tests showed that neither could have given rise to the alleged type of poisoning. The type of drug present in the residue from part of a tablet was checked, and a bactericidal detergent was examined for quality. Quality evaluations were also carried out on a smokeless fuel sample, and clinker from the combustion of a solid fuel was examined.

Samples brought in for analysis certainly do not lack variety. Pink plastic elephants filled with water and intended to be frozen and then put into drinks were brought in for check tests. These articles, imported from Hong Kong were thought perhaps to be filled with impure water, and in the event of one leaking it was thought the consequences might be serious if the water contained within the plastic was consumed. Bacteriological analysis of the water inside these particular pink plastic elephants showed it to be of a very high standard of purity. One wonders whether that was fortuitous or whether the manufacturers do pay attention to such important details. Material deposited on some waste ground was a sludge containing $11\frac{1}{2}$ per cent of sulphuric acid. This could well have presented a hazard, particularly to young children.

Thirteen samples of rain water were examined for their content of radio-activity and other miscellaneous samples were examined with reference to private water supplies. Samples of water from sub-floor areas were examined with reference to establishing the likely source, and water from the newly constructed paddling pool at Queens Park was checked for bacteriological quality.

Samples from other Corporation Departments, private samples etc.

EDUCATION DEPARTMENT AND BOLTON SCHOOL	39 swimming bath waters 1 sample of flour
BOROUGH ARCHITECT'S DEPARTMENT	2 sub-floor waters 2 oils
MUSEUMS DEPARTMENT	Material removed from Egyptian stone tablet.

PARKS DEPARTMENT
COUNTY BOROUGH POLICE

ATHERTON U.D.C.
HORWICH U.D.C.
PRIVATE

1 sample of disinfectant
5 samples of tablets
2 samples of food
4 samples of water
12 samples of water
4 waxed cartons
1 solvent
2 samples of paper mill effluents
5 samples of tablets
5 samples of milk
4 contract samples
2 samples of hide
2 pieces of timber
2 apple pie fillings
1 sample of fluid for timber preservation
2 samples of sandstone
2 silicone fluids
1 dog food
1 sample of currants
12 water samples

Waterworks Committee

The number of water samples examined in the Borough Laboratory for the Waterworks Committee during 1966 was 2,775. This number was similar to the number examined in 1965 (2,906).

The samples examined included regular weekly bacteriological analyses of all sources of supply with supplementary check analyses for pH value, residual chlorine, colour, iron and aluminium etc. This included 1,019 samples from supply works and 747 samples of raw waters.

A total of 515 samples were collected from consumers' premises with reference to regular appraisal of the quality of the water in the distribution network. Samples from the distribution system also included 58 samples from service reservoirs.

Chemical analyses were carried out on 186 samples and the level of radioactivity (total beta activity) was measured on 36 samples during the year.

There were 72 samples analysed in connection with consumers' complaints and another 78 from other special investigations.

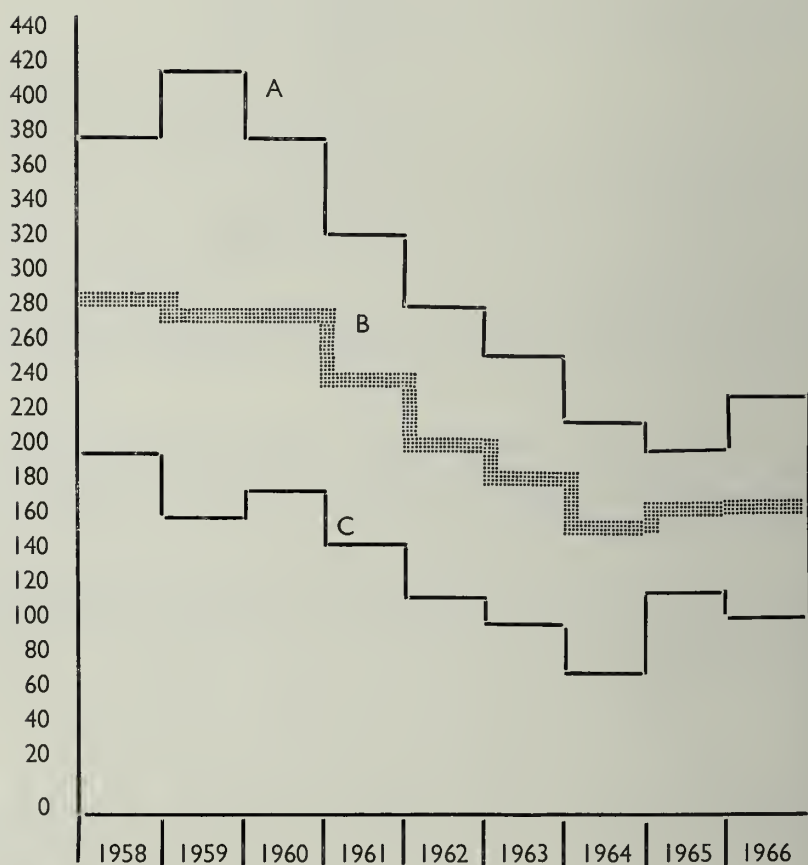
The remainder of the samples were made up of 20 waters collected from private supplies at Waterworks properties, and a series of 44 effluent samples.

A number of special investigations were carried out with reference to sources of supply and treatment processes at Waterworks. Special measures were adopted to cope with the abnormally large growths of diatoms which developed in the Wayoh raw water in Spring of 1966. Investigations concerning treatment plant performance were carried out at a number of waterworks, and surveys of the water quality in the catchment area of some supplies was also carried out during the year.

COUNTY BOROUGH OF BOLTON

ATMOSPHERIC SMOKE

Micrograms per cubic metre of air



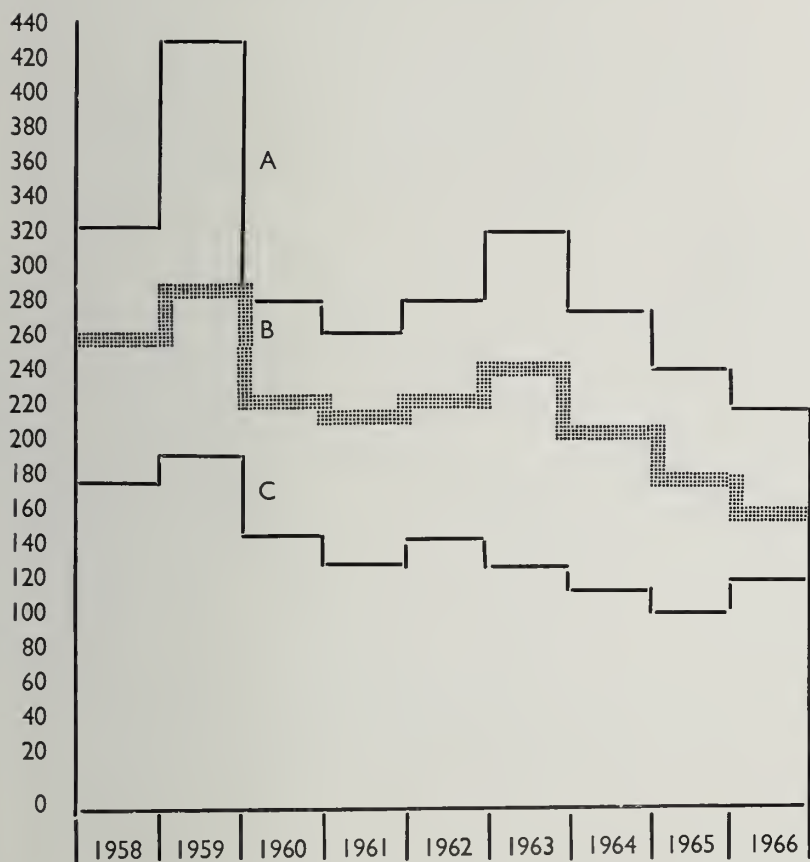
A Jan. - Mar. and Oct. - Nov.

B Whole year

C April to September

COUNTY BOROUGH OF BOLTON
ATMOSPHERIC SULPHUR DIOXIDE

Micrograms per cubic metre of air



- A Jan. - Mar. and Oct. - Nov.
B Whole year
C April to September

COUNTY BOROUGH OF BOLTON

AIR POLLUTION

Monthly Averages for Four Year Period 1963-66

Seasonal variation of Major Pollutants (Smoke and Sulphur Dioxide) and Three Minor Pollutants

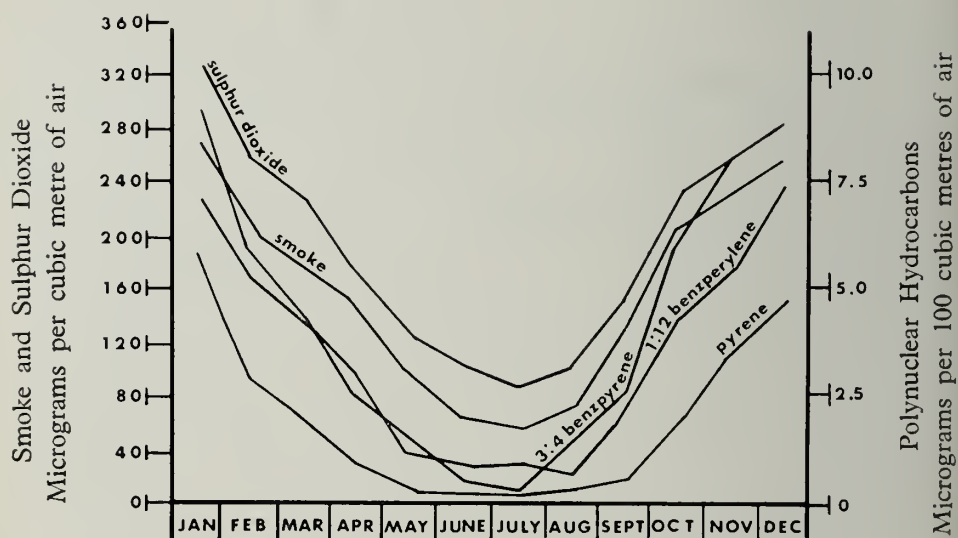


TABLE C

Atmospheric Pollution
Smoke—Daily Averages

(Micrograms per cubic metre of air)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Daily average of each site for		
													1966	1965	1963
1 Boot Lane . . .	181	123	70	75	58	38	29	44	79	152	141	141	96	104	133
2 Astley Street . . .	429	362	242	253	172	98	84	130	205	320	288	354	245	225	257
3 Tonge Moor . . .	317	242	242	159	157	103	87	113	188	268	307	314	208	226	198
4 Lostock Open Air School . . .	169	121	77	71	51	36	20	39	94	159	156	151	95	91	106
5 Central Police Office	235	173	106	110	83	60	42	70	133	209	191	183	133	126	155
6 Withins Clinic . .	289	200	165	136	104	62	52	82	139	234	234	259	163	155	167
7 Lock Lane . . .	282	216	128	142	94	64	31	70	142	220	197	193	148	138	160
8 Grecian Mill . . .	314	270	214	204	136	89	64	111	195	336	314	318	214	188	252
9 Darcy Lever . . .	332	238	167	148	119	75	61	86	155	254	246	264	179	195	197
Daily average (each month) of all sites, 1966 . .	283	216	157	144	108	69	52	83	148	239	230	242	164		
„ 1965 . .	149	122	163	183	117	80	76	90	158	236	270	289	161		
„ 1964 . .	317	211	182	115	68	64	38	49	79	188	196	205		143	
„ 1963 . .	359	291	216	159	91	59	72	75	127	165	236	316			181

TABLE D
Atmospheric Pollution
Sulphur Dioxide—Daily Averages
(Micrograms per cubic metre of air)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Daily average of each site for			
													1966	1965	1964	1963
1 Boot Lane	261	177	82	146	91	92	36	73	141	173	150	110	128	139	169	198
2 Astley Street	409	317	196	217	166	132	73	130	204	272	245	289	221	244	275	284
3 Tonge Moor	276	209	173	155	145	123	71	103	171	194	220	201	170	197	195	219
4 Lostock Open Air School	201	164	110	117	76	59	18	44	115	146	145	121	110	128	154	185
5 Central Police Office	342	239	171	175	147	109	70	113	185	265	253	242	193	208	252	268
6 Withins Clinic ..	273	198	162	146	135	116	66	103	164	210	215	222	167	171	202	227
7 Lock Lane	257	185	99	130	105	90	44	77	132	169	151	107	129	145	167	209
8 Grecian Mill	296	227	159	166	136	108	63	120	188	271	254	193	182	192	207	290
9 Darcy Lever	280	196	163	168	137	123	70	115	172	224	218	179	170	186	207	243
Daily average (each month) of all sites, 1966 ..	288	212	148	158	126	106	57	98	164	214	206	185	163			
„ 1965 ..	221	197	261	164	127	97	85	98	139	241	254	265	179			
„ 1964 ..	343	232	227	169	124	100	86	102	160	276	296	322			203	
„ 1963 ..	481	393	277	186	135	111	121	112	160	189	274	392				236

TABLE E
Atmospheric Pollution

3 : 4 Benzpyrene—Monthly Averages
(Micrograms per 100 cubic metres of air)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average of each site for		
													1966	1965	1964
2 Astley Street	12.7	12.7	4.6	7.3	1.7	1.2	0.6	3.2	5.4	7.9	8.4	7.4	6.1	6.5	6.4
4 Lostock Open Air School	3.6	2.5	1.8	1.3	0	0	0	0.6	1.9	4.4	2.7	2.7	1.8	2.3	3.1
5 Central Police Office	7.1	3.0	3.0	1.0	1.4	0.6	0.5	1.0	2.1	5.0	5.2	3.0	2.7	3.3	3.8
6 Withins Clinic ..	7.7	4.3	3.9	2.0	1.4	1.5	0.6	1.4	3.0	4.0	6.4	4.7	3.4	5.3	4.9
8 Grecian Mill	9.8	5.4	2.5	2.6	1.8	0.6	0.6	2.3	3.9	10.1	5.3	6.3	4.3	6.3	6.7
Monthly average of all (5) sites 1966 ..	8.2	5.6	3.2	2.8	1.3	0.8	0.5	1.7	3.3	6.3	5.6	4.8	3.7		
„ 1965 ..	7.4	5.0	6.4	3.8	1.9	1.0	0.9	1.3	3.5	6.0	8.4	11.5		4.8	
„ 1964 ..	11.4	5.4	3.7	1.2	0.4	0.3	0.1	1.7	3.5	10.0	11.1	11.1			5.0
„ 1963 ..	10.8	8.2	4.4	2.7	2.0	0.8	0.3	0.7	0.7	2.5	7.4	9.8			4.2

TABLE F
Atmospheric Pollution
1 : 12 Benzperylene—Monthly Averages
(Micrograms per 100 cubic metres of air)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average of each site for			
													1966	1965	1964	1963
2 Astley Street	12.8	7.8	6.8	3.6	3.3	0.9	1.4	0.6	3.6	8.4	6.8	9.5	5.5	5.0	4.5	6.6
4 Lostock Open Air School	4.9	1.1	0.8	0.8	0.9	0.7	0.3	0.8	0.8	1.5	3.7	4.0	1.7	1.7	1.4	2.0
5 Central Police Office	5.0	5.3	0.5	2.0	1.4	0.7	0.2	0.7	1.1	2.3	2.2	3.9	2.1	2.5	3.3	2.0
6 Withins Clinic ..	9.9	5.9	2.8	4.2	1.4	0.6	0.3	0.5	1.1	3.8	5.2	6.9	3.6	3.5	4.1	3.9
8 Grecian Mill	7.6	8.4	7.1	3.1	2.8	1.3	1.0	1.2	1.9	4.8	4.3	8.2	4.3	4.3	4.6	5.0
Monthly average of all (5) sites 1966 ..	8.0	5.7	3.6	2.7	2.0	0.8	0.6	0.8	1.7	4.2	4.4	6.5	3.4			
„ 1965 ..	4.6	4.1	4.2	2.2	1.0	0.6	0.9	1.3	2.9	5.4	6.3	7.3		3.4		
„ 1964 ..	8.3	5.1	4.6	2.6	1.0	1.5	0.9	0.7	1.2	3.0	6.5	7.6			3.6	
„ 1963 ..	8.0	6.8	4.5	3.8	1.8	0.6	1.7	0.4	1.8	4.5	3.6	9.2				3.9

TABLE G

Atmospheric Pollution

Pyrene—Monthly Averages

(Micrograms per 100 cubic metres of air)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average of each site for			
													1966	1965	1964	1963
2 Astley Street	8.6	4.4	1.6	2.6	1.0	0.4	0.2	0.6	1.3	2.5	4.1	6.5	2.8	3.4	2.5	3.2
4 Lostock Open Air School ..	3.1	2.2	1.4	0.9	0.6	0.2	0.3	0.2	0.6	0.8	2.2	1.4	1.2	1.4	1.2	1.3
5 Central Police Office	2.8	1.7	0.7	0.8	0.6	0.3	0.3	0.4	0.6	1.1	1.4	1.6	1.0	1.4	1.4	1.6
6 Withins Clinic ..	4.3	3.0	0.7	0.6	0.6	0.3	0.3	0.6	0.6	2.2	2.3	2.2	1.5	1.9	2.1	1.8
8 Grecian Mill	6.7	5.0	1.4	0.6	0.8	0.5	0.1	0.4	1.6	2.5	2.2	3.3	2.1	2.9	3.6	3.2
Monthly average of all (5) sites 1966 ..	5.1	3.3	1.2	1.1	0.7	0.3	0.2	0.4	0.9	1.8	2.4	3.0	1.7			
„ 1965 ..	4.6	3.0	3.3	1.1	0.5	0.3	0.5	0.5	1.0	2.1	4.7	4.9		2.2		
„ 1964 ..	5.6	2.2	1.5	0.7	0.2	0.2	0.2	0.7	0.9	3.1	4.8	5.6			2.2	
„ 1963 ..	8.6	4.0	1.9	1.1	0.4	0.3	0.2	0.2	0.2	1.0	3.0	5.8				2.2

TABLE H

Atmospheric Pollution

3 : 4 Benzpyrene—Monthly Averages

(Concentration expressed as parts per million of the smoke)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average of each site for			
													1966	1965	1964	1963
2 Astley Street . . .	297	352	191	287	99	118	68	247	261	248	290	210	222	293	318	183
4 Lostock Open Air School . . .	211	193	228	177	0	0	0	144	200	276	173	182	149	226	303	167
5 Central Police Office	301	175	284	92	166	102	124	137	155	239	272	166	184	232	237	196
6 Withins Clinic . .	268	214	234	147	137	233	119	174	218	170	274	182	197	327	273	175
8 Grecian Mill . . .	311	200	116	127	131	67	93	207	198	299	170	198	176	300	285	185
Monthly average of all (5) sites 1966 . .	278	227	211	166	107	104	81	182	206	246	236	185	186			
„ 1965 . .	549	445	470	191	158	110	95	143	212	248	290	396		276		
„ 1964 . .	360	233	200	111	33	34	51	292	396	534	583	570			283	
„ 1963 . .	261	267	189	160	219	156	53	68	54	147	312	290				181

TABLE I

Atmospheric Pollution

1 : 12 Benzperylene—Monthly Averages

(Concentration expressed as parts per million of the smoke)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average of each site for			
													1966	1965	1964	1963
2 Astley Street . . .	298	216	280	142	192	95	168	45	178	262	234	268	197	215	244	251
4 Lostock Open Air School . . .	288	84	98	109	166	196	172	194	86	97	237	265	166	175	142	157
5 Central Police Office	215	305	43	178	166	121	52	98	81	112	118	211	142	189	256	102
6 Withins Clinic . .	341	294	167	311	136	102	50	64	81	161	221	265	183	220	243	208
8 Grecian Mill . . .	242	311	332	150	204	143	162	109	98	143	137	256	191	207	216	180
Monthly average of all (5) sites 1966 . .	277	242	184	178	173	131	121	102	105	155	189	253	176			
„ 1965 . .	327	374	323	116	77	62	142	139	176	209	225	244	201			
„ 1964 . .	254	245	241	209	164	227	174	106	131	161	337	392			220	
„ 1963 . .	215	202	195	244	162	78	186	61	137	276	131	268				180

TABLE J
Atmospheric Pollution
Pyrene—Monthly Averages
(Concentration expressed as parts per million of the smoke)

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average of each site for		
													1966	1965	1964 1963
2 Astley Street . . .	201	123	67	103	56	44	28	46	65	77	140	183	94	163	121 90
4 Lostock Open Air School . . .	184	168	184	120	124	67	152	56	67	51	139	91	117	146	136 106
5 Central Police Office	119	98	61	68	72	49	76	51	48	53	75	86	71	106	102 68
6 Withins Clinic . .	149	150	43	41	59	45	57	69	44	95	97	85	78	113	111 75
8 Grecian Mill . . .	212	185	64	30	56	58	18	38	82	73	71	103	82	138	152 93
Monthly average of all (5) sites 1966 . .	173	145	84	72	73	53	66	52	61	70	104	110	89		
" 1965 . .	340	276	220	63	43	46	67	64	64	83	162	170		133	
" 1964 . .	165	94	90	63	38	39	53	131	125	162	243	287			124
" 1963 . .	215	132	84	66	44	55	41	37	22	56	119	165			86

PART V

ADDITIONAL INFORMATION

Fluoridation of Water Supplies

Medical Examination of Corporation Employees

National Assistance Act, 1948 - Section 47

Persons in need of Care and Attention

The Incidence of Blindness, Epilepsy and Cerebral Palsy

Work done on behalf of the Children's Committee

Co-ordinating Committee - Problem Families

Nursing Homes

Cremation

Rehousing on General Medical Grounds

Baths and Wash-houses

Meteorological Summary

FLUORIDATION OF WATER SUPPLIES

As was stated in last year's annual report, the Health Committee and the Town Council have agreed to fluoridation of the town's water supply. There has been some technical discussion with the Ministry officials and it is hoped that by the latter part of 1967, fluoridation will become a reality.

The unfortunate fact is that while we have waited, and other towns in England and Wales are still debating the value of fluoridation, some of the young people's teeth have been irreparably damaged. It is to be hoped that in ten years we can look at the mouths of five year old children and see none of the dental decay which is often evident today.

MEDICAL EXAMINATION OF CORPORATION EMPLOYEES

During the year, 2,128 examinations were carried out involving 2,119 persons. A summary of these is shown in the following table:

Examination for—	No. of persons examined		No. of persons found unfit	
	Males	Females	Males	Females
Entry into Superannuation Scheme	612	263	11	—
Entry into Sickness Payment Scheme	118	498	16	22
Other medicals, e.g. Fitness to resume employment etc.	8	—	—	—
Retirement on medical grounds	8	1	—	—
Independent medical opinion	30	2	—	—
Fitness to be employed as a teacher	85	96	1	1
Fitness for admission to a Training College	62	121	—	—
Fitness to teach after leaving the Bolton College of Education	158	41*	—	—
Medical examinations carried out at the request of other Local Authorities	7	9	—	—
TOTALS	1,088	1,031	28	23

* One female refused X-ray.

Of the above, there were twenty-three incomplete examinations, i.e. where it was found that a decision had to be deferred and the persons concerned were requested to attend for further medical examination.

Three hundred and five persons were sent to mass radiography units, and ten to Bolton Royal Infirmary for chest X-ray when a mass radiography unit was not available. All persons leaving the Bolton College of Education were sent to the mass radiography unit, and this accounts for 199 referrals. One hundred and six persons were sent because their employment involved work with children - 11 who were appointed to posts on the nursing staff. All students examined in connection with their fitness for admission to a training

college were advised to attend for a chest X-ray and information regarding available mass radiography units was supplied. X-rays were carried out at the request of the City of Leeds, Walsall County Borough and the City of Liverpool.

Five persons were referred to consultants for a further opinion.

Three hundred and thirty actual and potential public service vehicle drivers were examined during the year.

An analysis of the conditions which caused persons examined for entry into the Superannuation and Sickness Payment Schemes to be found unfit is shown in the following table:

	Superannuation Scheme		Sickness Payment Scheme	
	Males	Females	Males	Females
Cardiovascular disease, (including hypertension)	3	1	3	12
Respiratory system	4	—	4	1
Nervous system	1	—	1	1
Mental illness	—	—	—	2
Obesity	2	—	3	3
Varicose veins	—	—	—	1
Abdominal conditions, (including hernia)	—	—	5	1
Deafness	1	—	—	—
Arthritis	1	—	—	—
Other conditions	—	—	—	1
TOTALS	12	1	16	22

Comparison with the figures for the previous year shows that there has been a reduction in the number of candidates failed for Superannuation but an increase in those failed for the Sickness Payment Scheme. Cardiovascular disease, including hypertension, was the chief cause of failure, and once again hernias were the cause of failure of some of the men who were doing lifting jobs. It is interesting that several of the candidates for the Sickness Payment Scheme might have failed for several reasons; in the table they are included under the major condition.

Medical examinations were also carried out for the Motor Taxation Department in connection with the issue of driving licences in certain cases. Two such examinations were carried out in 1966 and in each case a recommendation was made that a driving licence should not be renewed.

NATIONAL ASSISTANCE ACT, 1948 - SECTION 47 PERSONS IN NEED OF CARE AND ATTENTION

Powers exist under Section 47 of the National Assistance Act, 1948 (as amended) for the compulsory removal of persons in need of care and attention to a hospital or to accommodation provided under Part III of the National Assistance Act. Such action is only taken as a last resort when a person is in an advanced state of neglect, or suffering from grave chronic disease and in great need of institutional care, but is unwilling to go voluntarily.

As in the previous year, it was not necessary to use these powers during 1966.

Elderly people are unwilling to leave their homes and every effort is made by officers of the department to try to support these old people even where the home conditions are unsatisfactory.

THE INCIDENCE OF BLINDNESS, EPILEPSY AND CEREBRAL PALSY

Blindness:

The Register of Blind Persons contained the names of 186 men and 250 women at the end of the year.

Forty men and 80 women were registered as partially-sighted.

The ophthalmic surgeons completed a total of 27 Forms B.D.8 during the year (8 males; 19 females).

Epilepsy:

The Chief Welfare Officer states that the Register of Handicapped Persons contained the names of 23 men and 26 women suffering from epilepsy. Of these, six men were in homes provided by voluntary organisations, two women were in homes provided by other local authorities, one man and seven women were in homes provided by Bolton Corporation, and 16 men and 17 women were in their own homes.

The Local Education Authority knew of 61 boys and 36 girls attending ordinary schools who were epileptic, and maintained two boys and five girls in special schools for epileptic pupils. In addition, three boys and three girls were attending other special schools.

Cerebral Palsy:

Thirteen males and 15 females suffering from cerebral palsy were on the Register of Handicapped Persons maintained by the Chief Welfare Officer.

The Local Authority was aware of 36 children with this handicap. Fifteen of these children were attending Birtenshaw Hall Special School and three children were attending other special schools; sixteen children were attending ordinary schools, and two were pre-school children.

Of the sub-normal and severely sub-normal persons known to the Authority, 14 males and 16 females were suffering from cerebral palsy in addition to the mental handicap.

Facilities available for Handicapped Persons:

The welfare of handicapped persons over school age is the responsibility of the Welfare Department, and from the age of two years up to school leaving age it is the responsibility of the Education Authority.

In addition to the facilities provided by the Welfare Department for handicapped persons in 1965, a new venture was undertaken in 1966 whereby on two occasions arrangements were made for handicapped persons to do their shopping outside the normal shopping hours.

WORK DONE OF BEHALF OF THE CHILDREN'S COMMITTEE

Routine medical supervision of children in the care of the Local Authority has been carried out by a medical officer of the Health Department throughout the year, and all the children have been examined at intervals, as laid down by the Home Office Boarding-out Regulations. These examinations were carried out at the larger group homes, Braxmere and Crompton House, and the family group homes.

A monthly visit has been made by a medical officer to the Elizabeth Ashmore Nursery to examine the children and to carry out routine immunisations and vaccinations.

All children for admission to or discharge from a home or nursery have been examined and certified free from infection.

A special quarterly report to the Children's Committee was issued by the Medical Officer of Health and a medical officer attended the meetings to answer any queries raised.

Medical Examinations:

No. of examinations on admission to Homes	..	153
No. of examinations on discharge from Homes	..	122
No. of examinations for boarding-out purposes	..	76
No. of routine examinations: 0 - 1 year	..	32
1 - 5 years	..	129
Over 5 years	..	158
		<hr/>
TOTAL	.. ..	670
		<hr/>

Nutritional Status:

The nutritional status of all children examined at routine medical examinations was satisfactory.

Classification of Defects needing Treatment found at Routine Medical Examinations:

No. of defects of Eyes	25
No. of defects of Teeth	14
No. of defects of Abdomen	6
No. of defects of Ear, Nose and Throat	11
No. of defects of Nervous System	6
No. of defects of Skin	9
No. of Medical Defects	8
No. of Psychological Defects	2
No. of Orthopaedic Defects	7
Incidences of Speech Defects	2
Incidences of Nocturnal Enuresis	11
Incidence of Infectious Disease	2
<hr/>	
TOTAL NUMBER OF DEFECTS ASCERTAINED ..	103
<hr/>	
No. of children referred for specialist opinion ..	5
No. of children referred to general practitioner ..	1

CO-ORDINATING COMMITTEE - PROBLEM FAMILIES

Meetings of this Committee have continued to be held quarterly under the Chairmanship of the Medical Officer of Health to consider the co-ordination of the services and review the work of the monthly Case Conference. Senior officers of each of the departments of the Corporation concerned with the health and welfare of children in their own homes, and representatives of all other bodies concerned with this problem attend these meetings.

I am grateful to Mr. P. E. Varey, Children's Officer, for supplying the following information:

"During the year a total of 41 families, involving 180 children, were the subject of consideration. Of these, a total of 22 families (86 children) were newly reported cases.

At the end of the year a total of 14 families (56 children) remained under active consideration. Of these, it was considered that 5 families (22 children) were being helped or were making satisfactory adjustments. The remaining 9 families were considered to have long-standing problems of a chronic nature and would need much guidance and assistance.

During the year a total of 27 families (123 children) were deleted from the register. Of these, 3 families (11 children) were deleted because the children had been received into the care of the Local Authority and there was little likelihood of an early rehabilitation. Five families (20 children) were deleted, the families having left town. The remaining 19 families (94 children) were deleted from the register, because they were considered to have improved, their needs had been met, or the families were no longer justifying active concern".

NURSING HOMES

During the greater part of 1966, three registered private nursing homes in the County Borough accommodated 66 patients, but towards the end of the year the closure of one of them limited the accommodation to 55 patients.

The nursing homes cater for private convalescent, medical and geriatric patients, and to ensure that facilities and staffing were appropriate for all types received, regular inspections were carried out by the Local Authority medical staff.

CREMATION

The "Overdale" Crematorium has now completed twelve full years of operation. The details are as follows:

Year	Number of Bolton Residents cremated	Cremations of persons from other areas	Total Cremations	Approx. percentage of deceased Bolton Residents who were cremated
1955	659	774	1,433	28%
1956	745	1,041	1,786	34%
1957	807	1,028	1,835	36%
1958	861	1,071	1,932	40%
1959	938	1,223	2,161	44%
1960	948	1,324	2,272	46%
1961	1,074	1,501	2,575	47%
1962	1,174	1,575	2,748	53%
1963	1,139	1,657	2,796	51%
1964	1,150	1,673	2,823	55%
1965	1,194	1,808	3,002	57%
1966	1,301	1,973	3,274	59%

REHOUSING ON GENERAL MEDICAL GROUNDS

The Housing Committee agreed to allocate fifty houses for persons recommended for rehousing on medical grounds.

The total number of applications received during the year was 311.

The number of applicants recommended for rehousing on medical grounds was 49, the reasons being:

Tuberculosis	.. .. .	2
Respiratory diseases	.. .. .	12
Heart and Circulatory diseases	.. .. .	21
Arthritis	.. .. .	7
Diseases of the Nervous System	.. .. .	3
Leg Amputation	.. .. .	2
Chronic ill-health	.. .. .	2
Miscellaneous	.. .. .	10

In six cases the medical conditions of both the husband and wife were taken into consideration.

Rehousing in ground floor accommodation was recommended in 40 cases.

Seventy-four applicants living in Corporation property were recommended for transfer to more suitable accommodation. Of these, 47 were recommended for transfer to ground floor accommodation.

Twenty-five applicants were living in accommodation in clearance areas and they will be rehoused when the property is dealt with under the housing clearance scheme.

In eleven cases the houses were dealt with as individual unfit houses.

Action was taken in six cases through the Chief Public Health Inspector's department to have repairs carried out.

In 26 cases where there was no medical reason for recommending rehousing the circumstances were reported to the Housing Manager for consideration on social grounds.

Two cases were rehoused in Sutton Trust property, three applications were withdrawn and one case was referred to the Housing Department for reconsideration.

Fifty-five persons were rehoused on medical grounds in 1966.

BATHS AND WASH-HOUSES

There was no change in the pattern of administration of the Baths Service. The various establishments offered the following facilities:

BATHS:

High Street	.. ..	1 Plunge
		9 Slipper Baths
Bridgeman Street	..	2 Plunges
		25 Slipper Baths
Moss Street	.. ..	2 Plunges
		18 Slipper Baths
Hennon Street	.. ..	23 Slipper Baths
		1 Shower Bath
Rothwell Street	.. ..	15 Slipper Baths
Great Moor Street	..	Turkish Baths

WASH-HOUSES:

Moss Street	..	8 Electric rotary washing machines
		6 Hand-washing stalls
		1 Coin slot ironing machine
Rothwell Street		12 Electric rotary washing machines
		18 Hand-washing stalls
		1 Coin-slot ironing machine

Below are the attendances during the past three years. Under "Wash-houses" (H) denotes hand stalls, (M) machines and (T) total.

Establishment	Swimming Baths			Slipper Baths			Wash-houses		
	1964	1965	1966	1964	1965	1966	1964	1965	1966
High St. Baths	67,655	63,553	67,645	17,800	21,116	24,018			
Bridgeman St. Baths. ..	147,482	126,105	116,592	47,304	44,675	37,520			
Moss St. Baths and Wash-houses ..	123,751	115,344	111,366	40,153	37,931	36,602	(M) 17,490 (H) 4,250 (T) 21,740	(M) 17,055 (H) 3,019 (T) 20,074	(M) 15,880 (H) 2,263 (T) 18,143
Hennon St. Baths ..				19,249	17,340	15,578	(M) 20,761 (H) 6,762 (T) 27,740	(M) 18,881 (H) 5,408 (T) 24,289	(M) 20,178 (H) 5,672 (T) 25,850
Rothwell St. Wash-houses				14,416	11,290	13,806			
TOTALS ..	338,888	305,002	295,603	138,922	132,352	127,524	(M) 38,251 (H) 11,012 (T) 49,263	(M) 25,936 (H) 8,427 (T) 44,363	(M) 36,058 (H) 7,935 (T) 43,993

TURKISH BATHS:

YEAR	ATTENDANCES
1956	6,991
1957	7,693
1958	7,711
1959	7,498
1960	8,494
1961	11,205
1962	12,389
1963	12,248
1964	11,984
1965	12,713
1966	11,728

Attendances:

A fall in the number of attendances at Bridgeman Street Swimming Baths and wash-houses was inevitable in 1966. The large plunge was closed throughout the month of January for decoration and for replacement of broken tiles. Then from 7th November until 31st December, the entire establishment was closed whilst the coke fired steam boiler was replaced by an oil fired steam generation plant. The re-opening of the small plunge was even further delayed into 1967 to renew an unsafe roof.

Attendances of school children in organised parties for swimming instruction were:

ATTENDANCES OF SCHOOL CHILDREN

	1964	1965	1966
Bolton Borough	58,276	53,643	59,509
Lancashire County Council. . .	8,122	8,153	7,488

The Health Committee award each year 150 passes, which entitle the holders to a year's free swimming, to school children who pass the tests of the Bolton Scholarship Scheme for the Encouragement of Swimming. Furthermore Bolton citizens of any age who attain the Bronze Medallion of the Royal Life Saving Society are awarded passes which entitle them to a year's free swimming. One hundred and thirty of these passes were awarded during the year. Lancashire County Education Authority also awards free swimming passes to pupils of Lancashire schools who pass their scholarship test. In this connection, the Lancashire Authority paid for 39 passes admitting such pupils to Bolton's swimming baths.

A number of swimming clubs flourish in Bolton, these hire the Baths after closing time to hold their weekly sessions. In fact, it has not been possible to meet the demand for the hire of the baths for after-hours swimming.

Repairs and Maintenance:

In addition to the routine repair and maintenance during 1966 (at Bridgeman Street Baths) the steam boiler was replaced by oil fired steam generation plant. The new plant was ready for test trials at the close of the year. Another major undertaking was the conversion of the coal fired steam boilers, at Moss Street baths, to oil firing. By the end of the year one of the boilers was in service and the conversion of the other was nearly complete.

1966 was the last complete year of office of the Baths Superintendent and it is desirable to comment on the improvements he has worked to achieve in the past decade. His task has not always been easy; the establishments themselves are old and there are many claims on the Corporation's revenue other than this service.

At Moss Street, items which spring to mind are the modernisation of the ladies' pre-cleansing room, the panelling of the front of the balcony and the fitting of the children's clothes compartments. The balcony in the large plunge has been asphalted and the terraced seating reconstructed. Unit heaters have been installed in the plunges and in the slipper baths. Finally, there has been the conversion of the steam boilers from coke to oil firing.

In the laundry eight modern end-loading washing machines have replaced the side-loading machines which have become worn out. Provision for drying was made by erecting ten drying racks, and the unit heater in this room was renewed.

At Rothwell Street five of the old-fashioned children's baths were replaced by more modern slipper baths suitable for people of all ages. Some six years ago the slipper baths had to be filled from outside by members of the staff; new fittings allow those taking a bath to run the water to suit themselves. Facilities in the public laundry were improved when twelve modern end-loading washing machines replaced the worn out side-loading machines. Moreover, seven hydro-extractors with safety catches and timing devices were installed to replace worn-out machines.

The Turkish Baths in Great Moor Street have seen considerable change during the past decade. Modern light fittings have replaced the old and new carpets have been fitted. Dressing accommodation has been increased by the addition of one more changing room and eight new clothes lockers. A hot water storage calorifier was installed to replace the old central heating boiler. Finally, the office and the lounge were fitted with sink units.

Improvements at Bridgeman Street Baths have included the modernisation of the small plunge as far as is practicable with the provision of tiled surrounds, scum troughs, unit heaters, 30 children's clothes lockers and pre-cleansing facilities with foot sprays and showers. In the large plunge, 24 additional male cubicles were erected on the balcony; the existing cubicles gave way to terazzo partitions fitted with formica faced coloured doors. The interior walls at these bath were faced with blue tiles and the walls of the pre-cleansing rooms with white tiles.

Finally, considerable work has gone into the modernisation of High Street Baths. In the slipper baths' suite, nine new slipper baths have been fitted to replace the old, the floor has been asphalted, wooden partitions have given place to formica, the ventilation system has been improved and an extractor fan and a heater installed.

In the plunge the old cubicles constructed of metal and plywood were replaced by cubicles similar to those installed at Bridgeman Street. Also the pre-cleansing rooms were modernised and fitted with foot sprays and showers.

In all this Mr. Markham's aim has been to give better facilities to the swimming public and to improve the working conditions of his staff by modernisation of the establishments as far as it was practicable, bearing in mind the age of the buildings and keeping expenditure within the limits of the monies available. He can, I think, look back with some satisfaction at what he has achieved. 'At the same time, he is quick to point out that much remains to be done if money can be made available. High on the list of priorities, he places the conversion of the (manual) coke fired boiler at Rothwell Street to (automatic) oil fired equipment, the replacement at Rothwell Street and Moss Street laundries of all the obsolescent hand stall facilities with automatic coin operated machines for small loads and the installation at the High Street baths of set-in steps, which are superior to the (existing) wooden steps fixed to the side of the baths.

Staff:

Members of staff, and especially attendants, are given every encouragement to qualify for a Life Saver's Certificate. One member attained the Bronze Medallion of the Royal Life Saving Society and one holder of the Medallion resigned from the service. The total number of certificate holders on the staff remains at 13.

Plunge Water:

The plunge water in all the public baths is supplied from the town's water mains. The holding capacity of all plunges total 243,072 gallons and details are shown below:

	LARGE PLUNGE		HOLDING CAPACITY (GALLONS)	SMALL PLUNGE		HOLDING CAPACITY (GALLONS)
Bridgeman Street	75'	× 25'	46,875	46'	× 19'	22,444
High Street	75'	× 26'	61,936			
Moss Street	75'	× 30'	75,337	60'	× 21'	36,480

The treatment of water in each establishment is by the process of continuous filtration with a four-hour turnover, combined with controlled chlorination, sulphate of alumina, and sodium carbonate. Daily tests of the water are made to ensure that the chlorine content of 0.5 and 1.0 parts per million and pH value of 7.0 to 7.5 is maintained.

Visits to the baths at least once a month, at unspecified times, are made by the staff of the Borough Analyst for the purpose of taking samples of the water for chemical and bacteriological analysis. The water in each of the plunges is examined for pH value, free and total residual chlorine content; also from a bacteriological aspect, the examination includes the number of organisms present in the water and tests for the presence and types of coliform organisms.

The results have shown that all the waters are consistently of the same standard of purity as the town's water from which the baths are supplied.

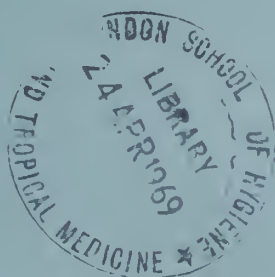
METEOROLOGICAL SUMMARY, 1966

Compiled at Hall i'th'Wood Observatory by Vincent C. Smith, Esq., Curator and Meteorologist

1966	Humid- ity %	Avg of Max. & Min. Temp. °F	Absolute Extremes of Temperature				Sunshine			Monthly Rainfall Inches	Wet Days	Fog Days	Wind	
			Highest °F	Date	Lowest °F	Date	Monthly Total Hours	Most in one day Hours	Date				Mthly Mileage	Highest Gust in one day m.p.h.	Date
January	86	37	53	29	21	19	36.9	5.5	2.19	10	6	3687		
February	89	40	55	5	21	14-15	33.7	4.8	6.96	20	1	4508		
March	87	42	53	2-6	27	19	93.9	9.2	2.87	18	3	6801		
April	85	44	64	29	21	4	80.9	8.4	3.74	17	-	4830		
May	79	51	75	1	36	7-13-28	204.8	15.0	4.28	16	-	5332		
June	82	59	73	9-10	43	1	146.4	14.2	4.24	18	-	4410		
July	81	56	73	21	42	18	177.2	13.0	4.43	20	-	4227		
August	81	58	75	19	40	15	124.4	11.0	3.94	15	-	3202		
September	86	56	68	20	39	16	113.2	9.0	3.54	10	2	3250		
October	86	49	61	6	33	26	78.4	8.0	4.97	25	7	2469		
November	84	41	51	13-14-15	29	9	35.8	5.2	4.40	20	7	4282		
December	89	40	53	17	20	26	36.2	5.1	7.49	27	3	5709		
TOTALS							1161.8		53.05	216	29	52707		
Monthly Averages	85	48					96.8		4.42			4392		

Rainfall: Average 1887 to 1966: 48.72 inches

4400
COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Principal School
Medical Officer

FOR

1966

COUNTY BOROUGH OF BOLTON
EDUCATION COMMITTEE



ANNUAL REPORT

OF THE

Principal School
Medical Officer

FOR THE YEAR 1966

A. I. ROSS, M.D., D.P.H.
Principal School Medical Officer

SCHOOLS SUB-COMMITTEE
Municipal Year 1966-67

HIS WORSHIP THE MAYOR
(Alderman Mrs. N. Vickers, J.P.)
ALDERMAN Mrs. E. M. RILEY (Chairman)
COUNCILLOR F. W. CHANDLER (Vice-Chairman)
ALDERMAN W. H. BATESON
ALDERMAN C. H. LUCAS, J.P.
ALDERMAN Mrs. H. WRIGHT, J.P.
COUNCILLOR C. N. BRAMHALL
COUNCILLOR D. GODBERT
COUNCILLOR T. W. HALL
COUNCILLOR Mrs. E. O. HAMER
COUNCILLOR E. WALTON

REV. R. BROWN	<i>(Co-opted Member)</i>	
REV. N. W. FORD	”	”
MISS M. D. HIGGINSON	”	”
MR. G. L. HUMPHREY	”	”
MR. T. WILLIAMS	”	”

Health Department,
Civic Centre,
Bolton.

*To the Chairman and Members of the Schools Sub-Committee
of the Bolton Education Committee*

The health of Bolton school children was, in general, good though there was again a considerable number of cases of measles in younger school children. Although measles is not ordinarily a serious disease, sometimes the complications are troublesome and the absence from school is always undesirable. Trials of measles vaccine in the country have shown that it is effective for at least some months. The trials are continuing and it is hoped that in a few years the vaccine will have been proved to be effective for longer periods.

The selective medical examination of primary school leavers is now operating in all primary schools in Bolton. A questionnaire is sent to the parents of these children and whether or not the child is examined depends on the information given. All the children have their hearing and eyesight tested. It is thought that the new method is more effective than that used previously as more time can be spent with those children who may have something wrong with them.

The report contains an account of a survey of primary school children who might possibly be deaf. Fifteen children found to have impaired hearing in both ears had not been found to have hearing loss when tested at school entry. It is possible that a few had missed the audiometric test because they were absent when the audiometrician visited their school. It is considered that this special study of deafness in children was most useful.

Children with infested heads continued to be a problem. Various measures were taken to improve the methods used in dealing with these children. Children who are badly infested are being excluded from school more rapidly and an attempt has been made to persuade parents whose children have repeatedly had dirty heads to bring them for inspection at the end of the holidays before they re-enter school.

The Authority now has a clinic and health centre building programme. The new Halliwell Health Centre will be opened in the autumn of 1967 and plans are in hand for new clinics at Deane, Daubhill and a replacement of the Robert Galloway Clinic, which is due to be demolished to make way for an inner relief road. Charles Street Clinic will be closing. The better facilities in these new premises will be much appreciated.

I should like to thank the staff of the department for their good work during the year, the Chief Education Officer for his continued co-operation and support, and the Schools Sub-Committee for their interest and enthusiasm for the work of the department.

a. Ross.

Principal School Medical Officer.

STAFF OF THE SCHOOL HEALTH SERVICE

Principal School Medical Officer ..	Dr. A. I. Ross	
Deputy Principal School Medical Officer	Dr. P. O. Nicholas	
Senior Assistant Medical Officer ..	Dr. J. L. Jackson	
School Medical Officers	Dr. Eve M. Mawdsley	(Resigned 31.7.66)
	Dr. Audrey Seddon	(Part-time)
	Dr. Mavis J. Allanson	(Part-time)
	Dr. Dorothy M. Paterson	
	Dr. J. H. Swindell	
	Dr. B. Howarth	(Commenced 12.9.66)

School Medical Officers worked part-time in both the Maternity and Child Welfare and School Health Services, and were appointed as Assistant Medical Officers of Health and School Medical Officers.

Ophthalmic Surgeons	Dr. T. Chadderton	(Part-time)
	Dr. T. Shannon	(Part-time)
Ear, Nose and Throat Surgeon	Mr. G. G. Mowat	(Part-time)
Principal School Dental Officer	Mr. A. E. Shaw	
School Dental Officers	Mr. S. J. Bray	
	Mr. M. R. Annis	(Part-time)
	Mr. I. G. Black	(Part-time)
	Mr. W. J. Abbott	
	Mrs. Mary R. McKenna	(Part-time)
	Mr. J. N. Kirkman	(Part-time)
	Mrs. J. M. Howarth	(Commenced 10.1.66)
	Mr. F. Wallwork	(Commenced 8.3.66)
Dental Anaesthetist	Dr. Elizabeth McKenzie-Newton	(Part-time)
Psychiatrist	Vacant	
Educational Psychologist	Mr. F. S. Stevens	
Clinical Psychologist	Mrs. P. Bunn	(Part-time)
		(Resigned Jan. 1966)
Speech Therapists	Mrs. B. P. Pannell	(Part-time from 24.1.67)
	Mrs. H. E. Thomas	(Resigned 28.2.67)
	Miss K. D. Holden	(Commenced 1.8.66)
Chiropodist	Miss Anne C. Drury	(Part-time)
Superintendent Nursing Officer ..	Miss E. M. Richardson	
Deputy Superintendent Health Visitor and School Nurse	Miss A. M. Fraser	

NURSING STAFF

On the 31st December there were 10 full-time School Nurses, and 30 Health Visitors working part-time on School Health and part-time on Maternity and Child Welfare work - the equivalent of 13.52 full-time School Nurses.

The Superintendent Nursing Officer supervised the work of the staff and was assisted by the Deputy Superintendent Health Visitor and School Nurse.

DENTAL SURGERY ASSISTANTS

There were 6 dental surgery assistants employed on the 31st December.

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GENERAL INFORMATION

No. of pupils on registers of maintained schools	24,708
Children attending:	
Nursery Schools	179
Primary Schools	15,582
Secondary Modern Schools	5,271
Secondary Technical Schools	1,429
Secondary Grammar Schools	1,844
Special Schools	403
No. of three and four-year old children on the registers of primary schools	1,409
No. of official nursery classes	26
No. of schools maintained by the Authority	90
Nursery Schools	2
Primary Schools	62
Secondary Schools	22
Special Schools	4

ARRANGEMENTS FOR TREATMENT AND SPECIAL EXAMINATIONS

Minor Ailments:

Consultation and Treatment Sessions - Doctor in Attendance

SCHOOL CLINIC	DAY AND TIME OF COMMENCEMENT	NO. OF SESSIONS WEEKLY
Robert Galloway Clinic, Ward Street	Tuesday and Thursday, 9.30 a.m. Friday, 2 p.m.	3
The Withins School Clinic, Withins Lane, Brightmet	Wednesday, 9.15 a.m.	1
Astley Bridge School Clinic, Moss Bank Way	Tuesday, 9.15 a.m.	1

Minor Ailment Treatment Sessions - Nurse only in Attendance

SCHOOL CLINIC	DAY AND TIME OF COMMENCEMENT	NO. OF SESSIONS WEEKLY
Robert Galloway Clinic, Ward Street	Monday to Friday, 9.15 a.m.	5
The Withins School Clinic, Withins Lane, Brightmet	Monday, Wednesday and Friday, 9.15 a.m.	3
Astley Bridge School Clinic, Moss Bank Way	Tuesday and Thursday, 9.15 a.m.	2

Morning sessions finish at 10.30 a.m. and afternoon sessions at 4 p.m.

Treatment Centres with only a school nurse in attendance were conducted at the following schools:-

Brownlow Fold	Thursday morning, 11 - 12 noon (Discontinued December, 1966)
Hayward	Monday, Wednesday and Friday morning, 11 a.m. - 12.30 p.m.

Dental Surgeries:

Six dental surgeries were in operation as follows:

ROBERT GALLOWAY CLINIC	2 Surgeries
Monday to Friday, 9.30 a.m. and 2 p.m.	
CHARLES STREET CLINIC	2 Surgeries
Monday to Friday, 9.30 a.m. and 2 p.m.	
ASTLEY BRIDGE CLINIC	1 Surgery
Monday to Friday, 9.30 a.m. and 2 p.m.	
THE WITHINS SCHOOL CLINIC	1 Surgery
Monday to Friday, 9.30 a.m. and 2 p.m.	

Aural Clinics:

The Consultant Aural Surgeon attended weekly at the Robert Galloway Clinic to see by appointment school children who were referred by the school medical officers.

Ophthalmic Clinics:

The Consultant Ophthalmic Surgeons attended at the Robert Galloway Clinic to examine by appointment children referred by school medical officers.

The clinics were held as follows:-

Monday afternoon	}	3 sessions weekly
Thursday afternoon		
Saturday morning		
Wednesday morning		1 session fortnightly

Morning sessions commenced at 9 a.m. and afternoon sessions at 2 p.m.

Child Guidance:

During the year there has been no appointment of a Consultant Child Psychiatrist. It has been difficult to conduct a complete child guidance service because of the absence of this most important leader of the team. Dr. Leyberg, the adult psychiatrist, continued to see difficult cases at the Bolton District General Hospital and at his Saturday morning session held in the Robert Galloway Clinic. In the early part of the year he was assisted at this clinic by his social worker and one of the full-time medical officers. In September it was decided to appoint a lady doctor who, though only working part-time for the school health service, was also doing some psychiatric clinic work with Dr. Leyberg at the hospital. By the end of the year we were coming to firm agreement with the Regional Hospital Board to appoint this doctor as a clinical assistant, and the local authority also appointed her on a sessional basis to organise the Saturday morning clinic, and to assist with the follow-up of these cases in the home environment so far as she was able. In this follow-up work she has been assisted by the school medical officers, but, as it was felt that the long term study of these maladjusted children was most important, arrangements were made to consider the appointment of a Senior Psychiatric Social Worker. At the time of writing this report this appointment has been agreed by the Education Committee, but the difficulty is of filling the appointment when no child psychiatrist is available to work with such a key person.

It was agreed during the year to make the appointment of Consultant Child Psychiatrist to the Wigan/Bolton areas alone as it was appreciated that to expect a consultant to serve four areas was a hopeless task. It was further agreed that the consultant to serve Wigan and Bolton would be able to "borrow" beds in the paediatric wards of these county borough hospitals, but this is most unsatisfactory. The paediatricians have enough acute medical cases for the beds they have, and in any case the very disturbed psychotic children who need hospitalisation are unsuitable to mix with physically ill children. It is hoped that the child psychiatrist will eventually have a small special ward.

As with the shortage of hospital beds, so the difficulty in placing maladjusted children in suitable school situations remains. A school for maladjusted children is to be opened in the Rochdale area, but this will provide only a few places for Bolton children. In addition to the Observation Class already available for children up to the age of seven years, local provision for maladjusted children beyond this age will be necessary. However, there are so many priorities for an expanding school population, it would seem that it will be some years before this can be done. In the meantime, as a handicapped group the maladjusted receive probably the least help, but it is essential that we give these disturbed children treatment, guidance and long term follow-up if we are to avoid the maladjustment of youth persisting into adult life.

Speech Therapy:

At the beginning of 1966, two full-time speech therapists were employed.

Audiometry:

Routine audiometric testing continued to be carried out in schools. Routine testing is carried out as soon as possible after school entry, and in the last year at primary school. In addition to the routine testing, full examination is carried out on children who have speech defects, who may be backward, or who are specially referred for any reason.

Enuresis Clinic:

Bedwetting occurs in all strata of society, is associated with all levels of intelligence, and thus its incidence causes anxieties in many homes. Consequently, treatment of this condition is well worth the effort.

Because of the emotional difficulties involved it is important to try and help the parents in understanding the child's problem, and at the same time give the child some aid in complementing his own efforts to be dry. The child's self-confidence is built up, and with initial success usually comes further success. The mechanical aid used is the Enuresis Alarm system.

In 1966, 219 children were referred to the clinic. One hundred and ninety children were seen, of whom 140 were new patients. Eighty-four were cured; 40 are still being treated.

No success is, however, possible unless the child and parents give their fullest co-operation.

Ultra Violet Light Treatment:

Ultra violet light therapy was available in the Health Department on the same basis as in previous years. Children may receive this treatment on the recommendation of school medical officers.

Breathing Exercises:

The physiotherapist in the Health Department continued to give instruction in breathing exercises for children recommended by school medical officers, chest physicians and the aural surgeon. She also attended at Lostock Open Air School to give instruction in breathing exercises to children at the school.

MEDICAL INSPECTION OF SCHOOL CHILDREN

During the year selective medical examination of primary school leavers was introduced in all primary schools in Bolton. This means that school children receive a routine medical examination on entry to school and on leaving school, but at the intermediate examination, although the vision and hearing of all primary school leavers is tested, only certain of these children are selected for full medical inspection. A questionnaire is completed by the parents, and this is considered alongside all the information available on the child. An attempt is made to consider health as a state of social, mental and physical well-being and not just an absence of disease. At a meeting, the head teacher, school doctors and school nurses carefully consider the children who need a full medical examination.

With few exceptions, parents have welcomed the new type of medical inspection at which more time can be given to the child most in need of help. The head teachers and class teachers welcome the closer contact with the school medical staff and the opportunity to be even more concerned than they have been previously in the decisions on the health of the children in their schools.

In the following table which shows the number of children who were selectively examined, it will be seen that some children who had eye defects and hearing loss were not selected for full examination. Some of these children had unsatisfactory refractive correction, and some required follow-up supervision of their hearing. Hence, it does seem necessary to examine all the primary school leavers for hearing and visual defects, even though only a few will require a full medical examination.

There is no doubt that selective medical examination has been a success, and the new method will continue in succeeding years.

Primary School Leavers

Number of children selected and examined	..	..	..	..	..	727
Number of children with eye defects	..	..	..	..	..	112
Number of children with hearing loss	..	..	..	..	..	132
Number of children not selected for examination	..	..	..	..	..	1,309
Number of children with eye defects	..	..	..	..	..	182
Number of children with hearing loss	..	..	..	..	..	51
Number of children selected but absent at examination	..	..	..	..	..	15

Periodic Medical Inspections

The total number of periodic medical inspections carried out in 1966 was 7,792, an increase on the number carried out in 1965, namely 6,425.

Number of children inspected:

Entrants	.. .. .	4,444
Primary School Leavers (Selective examinations)		727
Senior Leavers	.. .. .	1,984

TOTAL 7,155

Additional periodic inspections (including Special Schools)	637
----------------------------------------------------------------	---------	-----

GRAND TOTAL 7,792

Other Examinations

Special examinations	.. .. .	8,407
Re-inspections	.. .. .	7,224

TOTAL 15,631

RESULT OF INSPECTIONS

Periodic Inspections

The number of defects requiring treatment found at periodic inspections was 3,275, compared with 2,449 in 1965. The number of cases requiring observation increased from 2,015 in 1965 to 3,099 in 1966, an increase of 1,084.

Defect or Disease	Periodic Inspections						TOTAL	
	Entrants		Leavers		Others— Primary School Leavers Additional periodic inspections and Special Schools			
	Re- quiring treat- ment	Re- quiring obser- vation	Re- quiring treat- ment	Re- quiring obser- vation	Re- quiring treat- ment	Re- quiring obser- vation	Re- quiring treat- ment	Re- quiring obser- vation
Skin	113	93	104	19	52	12	269	124
Eyes:								
a. Vision . .	276	233	400	34	191	54	867	321
b. Squint . .	153	30	30	—	53	3	236	33
c. Other . . .	20	12	4	2	10	5	34	19
Ears:								
a. Hearing . .	143	165	27	13	152	89	322	267
b. Otitis Media	54	124	13	4	5	22	72	150
c. Other . . .	16	16	8	5	9	7	33	28
Nose and Throat	267	385	34	30	76	87	377	502
Speech	64	165	3	3	27	37	94	205
Lymphatic Glands	19	147	—	5	1	26	20	178
Heart	32	75	12	12	18	19	62	106
Lungs	88	123	27	18	29	20	144	161
Developmental:								
a. Hernia . .	23	17	—	—	4	1	27	18
b. Other . . .	143	236	9	9	66	41	218	286
Orthopaedic:								
a. Posture . .	13	25	1	4	2	12	16	41
b. Feet . . .	78	89	19	11	27	17	124	117
c. Other . . .	48	71	16	8	17	10	81	89
Nervous System:								
a. Epilepsy . .	11	4	6	6	13	1	30	11
b. Other . . .	15	16	8	2	8	9	31	27
Psychological:								
a. Development	3	34	1	3	9	182	13	219
b. Stability . .	5	35	1	6	13	45	19	86
Abdomen . . .	14	36	3	4	13	17	30	57
Other	87	31	19	4	50	19	156	54
TOTALS . . .	1,685	2,162	745	202	845	735	3,275	3,099

Summary of Pupils found to require Treatment

Age Group Inspected (By year of birth)	For defective vision (excluding squint)	For any of the other conditions recorded in previous table	Total individual pupils
1962 and later	17	215	179
1961	128	548	640
1960	132	436	527
1959	18	72	83
1958	5	17	19
1957	8	11	15
1956	83	281	321
1955	38	109	133
1954	16	31	43
1953	5	3	5
1952	159	141	270
1951 and earlier	258	192	392
TOTALS	867	2,056	2,627

Special Inspections

The following table shows the number of defects found at special inspections

Defect or Disease	Special Inspections	
	Requiring Treatment	Requiring to be kept under observation
Skin	245	20
Eyes:		
a. Vision	11	7
b. Squint	1	—
c. Other	21	1
Ears:		
a. Hearing	175	51
b. Otitis Media	18	3
c. Other	23	4
Nose and Throat	125	19
Speech	30	9
Lymphatic Glands	6	—
Heart	5	5
Lungs	56	12
Developmental:		
a. Hernia	4	—
b. Other	36	3
Orthopaedic:		
a. Posture	3	2
b. Feet	10	1
c. Other	44	9
Nervous System:		
a. Epilepsy	4	2
b. Other	35	3
Psychological:		
a. Development	17	8
b. Stability	28	18
Abdomen	28	2
Other	70	7
TOTALS	995	186

Presence of Parents at Periodic Medical Inspections:

Age Group Inspected	No. of pupils inspected	No. with parent present
Entrants	4,444	3,754
Primary School Leavers	727	481
Senior Leavers	1,984	119
Additional periodic inspections (including Special Schools)	637	330
TOTALS	7,792	4,684

Visits to homes of children by school nurses:

The number of home visits paid by school nurses was 327, compared with 708 in 1965. These visits continued to be made for the same reasons as in the past; some were in connection with the cleansing of children who were found to be infested with vermin, and others were in connection with examinations made under Section 34 or Section 57 of the Education Act, 1944. Some visits were also made in connection with failure to attend clinics held either by the local authority or at the hospital.

MINOR AILMENTS

The number of individual children attending school clinics and treatment centres was 2,020, an increase on the previous year when 1,838 children attended. The total number of attendances also increased from 5,201 in 1965 to 5,808 in 1966.

In spite of the reduction of the time given to minor ailments that was made last year, there still appears to be a need for minor ailment clinics. The figures in the table below show that there has been an increase in the numbers of school children attending, particularly at the main school clinic in the town. However, much of this minor treatment work can be carried out by school nurses, saving the doctors' time for more important medical duties. The doctors and school nurses are encouraged to study the children in the school environment, not under artificial clinic conditions.

Clinic or Centre	No. of individual children who attended	Children seen by medical officer on first visit	No. of subsequent visits to medical officer	Children seen by nurse on first visit	No. of subsequent visits to nurse	Total No. of Attendances
Robert Galloway	1,149	706	255	778	1,416	3,155
The Withins ..	171	230	110	246	716	1,302
Astley Bridge ..	155	138	16	77	191	422
Treatment Centres	545	—	—	608	321	929
TOTALS ..	2,020	1,074	381	1,709	2,644	5,808

The number of visits by school children to the treatment centres in schools was as follows:

Brownlow Fold	.. .. .	362
Hayward	.. .. .	567
TOTAL		<u>929</u>

NOTES ON SPECIFIC DEFECTS

Diseases of the Skin:

One hundred and seventy-nine cases of scabies were treated during the year, compared with 115 in 1965 and 112 in 1964. The incidence of scabies remains at a high figure and is increasing in Bolton. This increase is being reported from other industrial areas. During the year it was realised that some families were being re-infected after the disease had apparently been cleared. After consultation with the consultant dermatologist a new programme of treatment was drawn up, e.g. three days of application of Benzyl benzoate and a more thorough search for contacts was made. It is so easy to treat only the children with the rash and not to treat the lodger or the parent who appears free of the scabies infestation.

One of the difficulties has been persuading all the members of clean families to accept treatment. Some of these people do not appear to have a rash, or have an atypical rash which does not appear to be scabies.

The rising incidence of scabies may, in some part, be due to the fact that nurses and doctors more readily recognise the atypical rash or the impetigenous rash, where the underlying cause is due to the acarus parasite. Other doctors have suggested that the rising incidence may be due to a temporary loss of immunity and a lowered resistance in the community to the parents.

It is hoped that in the coming year we shall see a fall-off in this skin disease, the treatment of which is very time consuming for nurses and patients.

With all the extra cleansing to perform, timely improvements have been carried out during the year at the School Hill cleansing baths. Better washing and bathing facilities are available and the unit has undergone some redesigning to make the building more serviceable and hygienic.

Once again, no cases of ringworm of the scalp were discovered during the year.

Disease	Number of cases treated or under treatment by the Authority
Ringworm:	
(i) Scalp	—
(ii) Body	5
Scabies	179
Impetigo	19
Other skin diseases	336
TOTAL	<u>539</u>

Impetigo treated in School Clinics:

The number of cases of impetigo treated in school clinics was 19 in 1966, compared with 27 in 1965. The table below gives the figures for the past ten years.

Year	No. of Cases	Year	No. of Cases
1957	32	1962	33
1958	39	1963	16
1959	74	1964	17
1960	63	1965	27
1961	34	1966	19

Defects of the Ear, Nose and Throat:

A total of 495 children had their tonsils and adenoids removed during the year; five had operations for diseases of the ear and six for other nose and throat conditions. One hundred and sixteen of these children were seen by the aural surgeon at the school clinics and referred to hospital for treatment, and 379 children were referred direct to the hospital for treatment.

Treatment

	Number of cases known to have been dealt with
Received operative treatment—	
for diseases of the ear	5
for adenoids and chronic tonsillitis . .	495
for other nose and throat conditions . .	6
Received other forms of treatment	121
TOTAL	627

Mr. G. Gordon Mowat, the Consultant Aural Surgeon, reports:

“Ear, Nose and Throat Clinics have been held at regular intervals during the past year to see cases referred for specialist opinion by school medical officers. These are mainly cases of hearing loss which require assessment and there are also many cases of otitis media and cases requiring removal of tonsils and adenoids.

I would like to take this opportunity of thanking the nursing and administrative staffs at the clinics for their help and co-operation”.

Ear, Nose and Throat Clinics

No. of visits by patients	521
No. of patients attending	351
No. of new patients	259
No. of children referred from periodic inspections	138
No. of children referred from school clinics . .	213

Children attending the clinics for the first time were seen for the following conditions, which may have been multiple in any particular child:

Disease or Defect	Referred from—		TOTAL
	Periodic Inspection	School Clinics	
Deafness	24	74	98
Otitis Media	9	16	25
Tonsil and adenoid abnormalities	94	117	211
Catarrhal conditions	5	7	12
Other conditions	8	6	14
TOTALS	140	220	360

Five partially hearing children were recommended for special educational treatment and admitted to the Thomasson Memorial School during the year.

Two children were recommended for attendance at the lip reading class.

The aural surgeon completed prescriptions for hearing aids in respect of seven children.

Pure Tone Audiometric Testing:

Pure tone audiometry was used for the routine examination of the hearing of school children. A sweep test is carried out twice in the child's school life, the first test being shortly after entry and the second test at the age of 10 - 11 years. Children who fail the test are invited to the clinic for full examination.

As was stated in the 1965 report, it was felt that a number of children who had hearing loss and were attending ordinary schools were, perhaps, in need of more help than they were receiving. A survey was carried out in all primary schools and the teachers and head teachers were asked to study any children who were considered by inattentiveness or poor school progress to be suffering from possible deafness. The children selected were offered appointments at the clinic for full audiometric tests. The results are shown in the following table.

Children with no known previous hearing loss

Result of test in decibel loss								Total
Hearing normal	R. 0 - 30	L. 0 - 30	R. & L. 0 - 30	R. 30 - 60	L. 30 - 60	R. & L. 30 - 60	R. & L. 60	
71	15	6	18	3	1	15	—	129

Children with previous hearing loss

Result of test in decibel loss								Total
Hearing normal	R. 0 - 30	L. 0 - 30	R. & L. 0 - 30	R. 30 - 60	L. 30 - 60	R. & L. 30 - 60	R. & L. 60	
22	12	9	16	6	6	24	3	98

The results have been analysed in terms of children with no known previous hearing loss and children with known hearing loss. Of the children with no previous hearing loss, 129 attended for hearing tests and 23 failed to keep repeated offers of appointments. Of the 129 children who attended, 15 had 30 - 60 decibels of loss in both ears.

Of these 129 children, the sweep tests at school entry had been normal in 101 of the children when they were tested at five years. The remaining 28 were either absent when the audiometrician attended their school, or were awaiting testing as they were included in this survey under the age of five years, or had been transferred from other education authorities to Bolton primary schools and for this reason missed the test.

What has happened to the 15 children with 30 - 60 decibels of loss in terms of treatment and school progress is set out below. One fact is certain; they are receiving help from the Ear, Nose and Throat Surgeon, and some children who have undergone ear, nose and throat surgery have had improvement in their hearing.

Children with no previous hearing loss

No. of children found to have 30 - 60 decibel
loss in both ears 15

Of these:-

5 children had tonsils and adenoids operation

POST OPERATION:

- 1 no deafness
- 1 30 decibel loss both ears
- 1 45 decibel loss R. - repeat test
- 2 for observation and repeat hearing test

4 children were awaiting operations:

- 2 tonsils and adenoids
- 1 tonsils and adenoids and myringotomy
- 1 tonsils and adenoids and microscopic examination of ears

6 others:

- 1 no deafness after ears syringed
- 1 recommended for speech therapy
- 1 30 - 60 decibel loss both ears when tested later
- 1 50 decibel loss both ears when tested later - review
- 1 25 decibel loss L. 35 decibel loss R. when tested later and referred to E.N.T. clinic
- 1 30 - 60 decibel loss both ears - awaiting repeat test

EDUCATIONAL ATTAINMENTS:

- 1 top half of the class
- 1 lower half of the class
- 1 below average
- 1 very slow
- 1 slow starter
- 10 average or above

One child was recommended for change of position in the classroom.

Of the children with known hearing loss, 98 attended for hearing tests and 7 failed to keep repeated offers of appointments. It is difficult to understand why some parents fail to appreciate the importance of good hearing to assist their child's education, but we shall still try to follow up these absentees.

Of the 98 children tested, 24 had 30 - 60 decibels of loss in both ears, and three children had more than 60 decibels of loss in both ears.

The excellent treatment that these children have received from the Ear, Nose and Throat surgeon and from hospital departments and speech therapists and remedial teachers is summarised below. In considering their educational attainments, it was noted that in some cases the child's hearing loss had affected his school progress.

Children with previous hearing loss known

No. of children found to have 30 - 60 decibel loss in both ears	24
--------------------------------------------------------------------	---------	----

Of these:

- 7 children had tonsils and adenoids operation
- 1 child had tonsils operation and sinuses wash-out
- 1 child had tonsils and adenoids operation and mastoidectomy
- 1 child had tonsils and adenoids operation and microscopic examination of ears
- 2 children had adenoidectomy

POST OPERATION :

7 tonsils and adenoids :

- 1 awaiting repeat hearing test - review
- 1 30 - 40 decibel loss both ears, high tones only - review
- 1 35 decibel loss L. at 8,000 C.P.S. only
- 1 50 decibel loss R. - attending E.N.T. clinic
- 2 attending E.N.T. clinic
- 1 45 decibel loss R. attending E.N.T. clinic at Bolton Royal Infirmary

1 tonsils and sinuses :

Attending Royal Manchester Children's Hospital E.N.T. department

1 tonsils and adenoids and mastoidectomy :

30 decibel loss R. 50 decibel loss L. - attending general practitioner

1 tonsils and adenoids and microscopic examination of ears :

35 decibel loss L. 50 decibel loss R. - awaiting repeat pure tone audiogram

2 adenoids :

- 1 30 decibel loss L. 40 decibel loss R. - review
- 1 40 decibel loss both ears - review

AWAITING OPERATIONS :

- 2 adenoids and microscopic examination of ears
- 1 tonsils and adenoids and bilateral myringotomy
- 2 tonsils and adenoids
(1 child recommended for speech therapy)

OTHERS:

- 1 35 - 45 decibel loss both ears - attending E.N.T. clinic at Bolton Royal Infirmary
- 1 35 - 50 decibel loss L. 40 decibel loss R. - attending E.N.T. clinic. Recommended for lip reading
- 1 30 decibel loss R. at 8,000 C.P.S. only (wax removed from ears)
- 1 40 decibel loss L. 30 decibel loss R. - attends E.N.T. clinic at Bolton Royal Infirmary
- 1 55 decibel loss L. 65 decibel loss R. - attends Lancaster E.N.T. consultant. Has hearing aid.
- 1 wax removed from ears - failed to attend for repeat hearing test
- 1 attending general practitioner

EDUCATIONAL ATTAINMENTS:

- 4 below average
- 2 poor
- 12 average
- 1 poor reader
- 2 fair
- 1 slow
- 2 very good

One hearing aid issued

Eight children recommended for change of position in the class-room.

No. of children found to have more than 60
decibel loss in both ears 3

Of these:

- 2 children had tonsils and adenoids operations

POST OPERATION:

- 1 perceptive deafness L. probably congenital. Attends E.N.T. clinic regularly. 75 loss L.
- 1 improved with hearing aid. Attending E.N.T. clinic. Ears syringed. Politzer bag. Review.

OTHER:

- 1 improved with hearing aid. Attending E.N.T. clinic

EDUCATIONAL ATTAINMENTS:

- 2 average
- 1 fair

Two hearing aids issued

Three children recommended for change of position in the class-room

It is important to note that eleven children who had a previous hearing loss of 30 - 60 decibels in tests conducted some years before the survey had, at the time of the survey, normal hearing.

The following summary illustrates the value of E.N.T. procedures in the preservation of hearing.

No. of children with previous hearing loss of 30 - 60 decibels. Hearing now normal	11
-----------------------------------------------------------------------------------------------	----

Of these:

- 5 children had tonsils and adenoids operation
- 1 child had adenoidectomy
- 1 child had adenoidectomy and microscopic examination of ears
- 1 child had bilateral antral puncture

POST OPERATION :

5 tonsils and adenoids :

- 1 hearing satisfactory with hearing aid
- 4 no further action

- 1 adenoids - no further action
- 1 adenoids and microscopic examination of ears - no further action
- 1 bilateral antral puncture - no further action

OTHERS :

- 1 hearing satisfactory - catarrhal - course of ultra-violet light therapy
- 1 hearing test normal - had treatment at Bolton Royal Infirmary
- 1 hearing normal

EDUCATIONAL ATTAINMENTS :

- 1 excellent
- 9 average
- 1 slow

One hearing aid issued

Two children recommended for a change of position in the class-room.

For many years Bolton schoolchildren have had the advantage of advice from the Consultant E.N.T. Surgeon. The inability to fill one of the Consultant E.N.T. appointments has resulted in the School Health Service trying to give order of priority to children in need of consultant advice at the school E.N.T. clinic. Top priority has been given to children with ear diseases and hearing loss. Tonsil infection alone has come second to those children with tonsil and middle ear disorder. The survey indicates that this order of priorities is a correct one.

In the educational field discussions have taken place between health and education officers and teachers on the advisability of a peripatetic teacher for the partially hearing pupils attending ordinary schools. If this teacher were on the staff of Thomasson Memorial School for the deaf and partially hearing, there would be a better service and, by guidance in the ordinary school, there might be an improvement in the educational attainments of some children. The great problem is that classes in the primary school tend to be large and the overworked class teacher would need the helpful advice of a peripatetic teacher of the deaf if partially hearing children are present in the large classes of the ordinary schools.

The early ascertainment of deafness in children is extremely important and the health visitors carry out screening tests for the ascertainment of deafness in pre-school children or as part of the work undertaken by the Health Department.

The following table shows the number of children in various age groups tested at schools and tested at clinics.

Sweep Testing in Schools

Sources of Children tested	Tested			Failed Test		
	Boys	Girls	Total	Boys	Girls	Total
Primary Schools:						
Entrants	793	701	1,494	143	103	246
Leavers	1,071	980	2,051	128	95	223
TOTALS	1,864	1,681	3,545	271	198	469

Full Testing at the Clinics

Source of Reference	No. of children referred for test	App't nct kept for test	Result of Audiogram		Unsatisfactory Audiograms and Recommendations				
			Satisfactory	Unsatisfactory	Change of position in class	For observation	Repeat audiogram	Treatment at the clinic	To Aural Surgeon
Failed sweep test in school ..	469	61	52	356	7	150	145	9	45
School Medical Officers ..	25	17	45	163	—	58	68	1	36
School Medical Officers on account of speech defect	76	5	40	31	—	14	12	3	2
On account of backwardness	39	5	21	13	—	9	2	—	2
Others:									
Aural Surgeon	30	2	5	23	—	2	2	1	18
Headmaster	8	1	—	7	—	5	1	1	—
Parent	30	—	8	22	1	11	3	1	6
Family Doctor	16	—	3	13	—	7	4	1	1
Health Visitors	13	—	3	10	—	4	4	—	2
Paediatrician	5	—	1	4	—	3	1	—	—
Educational Psychologist	1	—	—	1	—	—	—	—	1
Repeat Audiograms	304	31	58	215	1	104	70	4	36
TOTALS ..	1,216	122	236	858	9	367	312	21	149

Diseases of the Eye:

Altogether, 1,699 children are known to have been dealt with for errors of refraction. Of these, 1,555 were refracted by the ophthalmic surgeons at the school clinics. The total attendances at the clinics numbered 3,248, of which 3,217 were for refraction, repairs to glasses and re-examinations, and 31 for diseases of the eye.

Nine children were referred to the Bolton Royal Infirmary.

In 243 cases spectacles were repaired or replaced.

Fifty-three children were referred to the ophthalmic clinic at the Bolton Royal Infirmary for treatment for squint.

Dr. T. Shannon, Consultant Ophthalmic Surgeon attending at the Robert Galloway Clinic, reports:

“The Eye Clinics held by me at the Robert Galloway School Clinic continue to run very smoothly.

I should like to record my thanks to the staff who have contributed greatly towards the efficient running of these clinics”.

Dr. T. Chadderton, Consultant Ophthalmic Surgeon attending at the Robert Galloway Clinic, reports:

“I am pleased to report that the Eye Clinics held by me at the Robert Galloway Clinic continue to run extremely smoothly.

The staff continues with its usual efficiency and is most helpful”.

Cases of eye disease, defective vision or squint for which treatment was initiated by the school medical officers, may be analysed as follows:

	Number of cases known to have been dealt with
External and other conditions excluding errors of refraction and squint	48
Errors of refraction (including squint) . .	1,651
TOTAL	1,699
Number of pupils for whom spectacles were prescribed	1,057

The following were found at periodic medical inspection to require attention for defects of the eye.

Defect	Age Groups Inspected				Totals
	Entrants	Primary School Leavers	Senior School Leavers	Additional Periodic Inspections and Special Schools	
Defective Vision	276	113	400	78	867
Squint	153	22	30	31	236
Blepharitis . .	3	3	1	1	8
Conjunctivitis . .	4	—	—	1	5
Other	13	2	3	3	21

Orthoptics:

Children requiring treatment by an orthoptist continued to be referred to the orthoptic clinic at the Bolton Royal Infirmary as it has not been possible to recruit an orthoptist to do this work in the school clinics.

Defective Colour Vision:

As in previous years, the colour vision of secondary school leavers has been tested using the Ishihara method. In 1966, 41 children were found to have defective colour vision, compared with 40 in 1965. Forty of the 41 children were, of course, boys.

Orthopaedic Defects:

Two hundred and seventy-eight children were found to have orthopaedic defects. Two hundred and twenty-one of these were found on periodic medical inspection and the remaining fifty-seven at school clinics. Seventeen children were referred to consultant orthopaedic surgeons at the Bolton Royal Infirmary for advice and treatment.

Chiropody:

Three sessions weekly were held by the chiropodist at the Robert Galloway Clinic.

Miss Anne C. Drury, the Chiropodist, reports:

"As in previous years, the Chiropody Clinic has been well attended and I have had the usual good co-operation from staff, patients and parents. The waiting list has fluctuated during the year, but at the present time is down to approximately a fortnight.

The number of children attending the clinic, and a summary of defects treated, are given below."

	BOYS	GIRLS
No. of new patients who attended the clinic ..	170	241
Defects treated:		
Plantar warts	119	213
Chilblains	3	3
Hallux Valgus	—	6
Onychocriptosis (ingrowing toe nails)	6	4
Tinea Pedis (Athlete's foot)	5	2
General chiropody (corns, callosities, general advice, etc.)	22	45
Total number of individual treatments	2,344	

Cleanliness of School Children:

The percentage of children with infested heads in 1966 was 7.4, compared with 7.3 in 1965. The high figure for infestation persists in spite of much hard work by the hygienists in schools. Every effort is made to encourage the boys, many of whom like the modern long hair style, and the girls with long hair, to keep their hair well groomed and clean.

As mentioned in the Report last year, special attention was to be paid to the hard core of families who are constantly infected with head lice. It was found that the problem was particularly troublesome in certain schools in the town. The hygienists had cleaned up the children in term time while they were attending school, but the children from these difficult families became infested in the holiday periods and returned to school the next term to spread lice to the clean children.

One of the faults in the cleansing provisions of the Education Act is that it only has legal force while the child is attending school, so that the hygienist or nurse has to be in school almost on the first day of term to prevent the spread of infestation from the hair of the heavily infested children.

There may be only one or two such children in the big classes of the primary schools, but at the end of a week many children will have to be excluded from school because of the rapid spread of lice. In the past the parents of the difficult families have accepted that the school hygienist will clean up their children. In a few cases there is apathy and during the school holidays no effort is made at home to carry out the treatment which has been carefully explained to the parents - "The nurse will do it. Why should I bother?"

In consultation with the Town Clerk's and Education departments, the legal forms have been revised, being of varying degrees of severity dependent on the past history of the case. Children who are badly infested are being more rapidly excluded from school, sometimes on the first day of term. The parents have to bring their child to the baths for cleansing. The parents are encouraged to have their own hair treated, if necessary. Every effort is made to get the parents to learn how to treat head infestation. The senior nursing officers who have supervised much of this work are kind, but are becoming increasingly firm with parents who constantly transgress - some even refuse to bring the child for cleansing - and the education welfare officers follow up these families.

An informal letter has been drawn up to try to persuade these hard core families to attend with their children during the holiday periods so that the children are clean when they re-enter school. This letter has no legal compulsion and it will be interesting to see what success this meets with. No-one can say we have not tried, but it would seem that the problem of infestation will be with us for some years to come.

One hundred and twenty-one children - 40 boys and 81 girls - attended the Municipal Medical Baths at School Hill for vermin disinfection and bodily cleansing.

Notices to Cleanse were issued under Section 54(2) of the Education Act on 163 cases, compared with 26 in 1965. Cleansing Orders under Section 54(3) of the Education Act were issued in 52 cases.

	1962	1963	1964	1965	1966
School Population	24,571	24,484	25,631	24,218	24,708
No. of head inspections	53,167	50,962	54,234	61,102	59,436
No. of children with nits or vermin	1,456	1,398	2,022	1,772	1,843
Expressed as a percentage of school population	5.9	5.7	7.8	7.3	7.4

THE GENERAL CONDITION OF SCHOOL CHILDREN

Result of Routine Medical Inspection:

At the routine medical inspections, the school medical officer concludes his medical report with a statement on the child's general condition, whether satisfactory or unsatisfactory. This classification, which was adopted nationally from the 1st January, 1956, has the merits of simplicity and practicability.

Of the 7,792 children examined at periodic inspections, 7,752 (99.49%) were satisfactory and 40 (0.51%) were unsatisfactory. Details are given in the following table.

Age Groups Inspected (By year of birth) (1)	No. of Pupils inspected (2)	Physical Condition of Pupils Inspected	
		Satisfactory (3)	Unsatisfactory (4)
1962 and later	808	805	3
1961	2,030	2,021	9
1960	1,615	1,604	11
1959	261	258	3
1958	69	66	3
1957	72	72	—
1956	548	544	4
1955	220	219	1
1954	103	102	1
1953	16	16	—
1952	890	885	5
1951 and earlier	1,160	1,160	—
TOTALS	7,792	7,752	40
Col. (3) total as a percentage of Col. (2) total		99.49	—
Col. (4) total as a percentage of Col. (2) total		—	0.51

The School Meals and Milk in Schools Scheme:

The percentage of school children during 1966 taking school milk under the above schemes	84.77
No. of dinners produced in the school kitchens during 1966	3,132,552
Average number of children taking meals daily . .	14,735
Percentage of school children taking dinners in school during 1966:	
Expressed as percentage of average attendances . .	68.03
No. of central kitchens	2
No. of kitchen/dining rooms	42
No. of children on free meals list at 31st December . .	1,681

IMMUNISATION

Immunisation against diphtheria, tetanus and poliomyelitis continued on the same lines as in 1965.

Children who have been immunised against diphtheria, tetanus and poliomyelitis in infancy receive one booster injection against diphtheria and tetanus, combined with one dose of oral Sabin vaccine, at the age of five years. Where a child has not been adequately immunised against diphtheria or tetanus or poliomyelitis in infancy, a suitable course of immunisation is arranged.

DENTAL HYGIENE

Report of the Principal School Dental Officer

Staff:

The ever present problem of insufficient staff continues to hamper the expansion of the Dental Service and consequently fully comprehensive dental care cannot be given to all children needing such treatment. However, the appointment during the year of two part-time officers enabled us to finish the year with the equivalent of 5.0 full-time officers, having started the year with only 3.5. Our establishment is 8 full-time officers.

Recruitment:

No applications were received in answer to advertisements for School Dental Officers, but personal contacts resulted in the recruitment of some part-time staff.

Clinics:

The two surgeries at the Robert Galloway Clinic and the two surgeries at Charles Street Clinic were open throughout the year. The single surgeries at The Withins and Astley Bridge clinics were also open throughout the year but only on a part-time basis.

There is encouraging news of two new surgeries now being built in the Halliwell Health Centre, which should come into use during the summer of 1967, and at last the condemned and unsafe premises at Charles Street will be abandoned. These are the first purpose built dental surgeries at clinics in Bolton and perhaps mark the start of a new era. Unsuitable premises do not encourage recruitment and the modern dental surgeon will only work in modern well-equipped premises. However, these two new surgeries merely replace existing surgeries, and additional premises are essential if the service is to expand.

Recruits usually wish to start work immediately and will not wait until premises are made available. It is considered that it would be good policy and wise planning to provide premises in advance; opportunities have sometimes been missed in the past due to lack of available surgery accommodation.

Dental Inspections:

Of a school population of 24,708, 9,369 received a routine dental inspection in school. This is fewer than last year because we had less staff. During the year, 3,081 children were dentally inspected for the first time at the various clinics. Included in this number were 1,851 emergencies. Most of the others were recalled for the maintenance of dental fitness in previously treated cases. The total number of dental inspections was 12,450.

Treatment:

The number of children who received dental treatment was 4,228, and 3,691 were made dentally fit. Attendances numbered 11,601, and 3,525 permanent fillings and 1,927 fillings in temporary teeth were inserted. The ratio of permanent teeth saved to permanent teeth extracted was 1.66, compared with 1.63 in 1965. Many of these permanent extractions are for orthodontic reasons.

One gold inlay, 11 crown and 17 artificial dentures were fitted.

One hundred and seventy-five children received orthodontic treatment by means of appliances. Seventy-four of these were new cases, and 87 removable and six fixed appliances were fitted. Six pupils were referred to the hospital orthodontic consultant.

General anaesthesia was administered in 2,443 cases. This is a service which is greatly appreciated by parents for the quick relief of toothache of an urgent nature suffered by their children. One hundred and ninety cases received a radiological examination and 338 X-ray films were taken.

Other operations totalled 4,368 and included scaling and gum treatment, treatment of oral ulceration including Vincent's Angina, the placing of dressings for the relief of dental pain, impressions for dentures and orthodontic appliances, topical application of stannous flouride, and metal bands and splints fixed to teeth fractured as the result of an accident.

These many important services and attendances for advice and treatment planning are time consuming, and are emphasised here because they seem to get little credit statistically from the Department of Education and Science.

Dental Health Education:

The follow-up of our successful Dental Health Weeks was continued with talks in schools, posters, leaflets, films and chairside talks on dental hygiene.

Many schools now sell fruit and crisps in an effort to reduce the consumption of acid-forming carbohydrate snacks such as biscuits, sweets, etc., and we look forward in the future to much help in the control of dental decay in Bolton from the decision to fluoridate the water supply, which should prove to be a very important preventive dental health measure.

The dental staff record their appreciation of the help received from the Chairman and members of the Schools Sub-Committee, from the Principal School Medical Officer and his staff, and of the interest shown in dental health by the Deputy Principal School Medical Officer; also from the Chief Education Officer and his staff, and of course of the great assistance afforded by the good will and co-operation of head teachers and their staffs which makes our work so much more pleasant and easier.

No. of pupils on the Register of maintained primary and secondary schools including nursery and special schools, at end of year 24,708

Attendances and Treatment:

	Ages 5 to 9	Ages 10 to 14	Ages 15 & over	Total
First visit	2,410	1,558	260	4,228
Subsequent visits	2,847	1,814	464	5,125
Total visits	5,257	3,372	724	9,353
Additional courses of treatment commenced	227	202	56	485
Fillings in permanent teeth	632	2,323	570	3,525
Fillings in deciduous teeth	1,755	172	—	1,927
Permanent teeth filled	536	2,008	521	3,065
Deciduous teeth filled	1,630	162	—	1,792
Permanent teeth extracted	424	1,196	224	1,844

Deciduous teeth extracted	3,563	1,060	—	4,623
General anaesthetics	1,510	835	98	2,443
Emergencies	1,103	632	116	1,851

Number of pupils X-rayed	190
Prophylaxis	353
Teeth otherwise conserved	422
Number of teeth root filled	27
Inlays	1
Crowns	11
Courses of treatment completed	3,691

Orthodontics:

Cases remaining from previous year	101
New cases commenced during year	74
Cases completed during year	45
Cases discontinued during year	43
No. of removable appliances fitted	87
No. of fixed appliances fitted	7
Pupils referred to Hospital Consultant	6

Prosthetics:

	5 to 9	10 to 14	15 & over	Total
Pupils supplied with F.U. or F.L. (First time)	—	—	1	1
Pupils supplied with other dentures (First time)	—	9	6	15
Number of dentures supplied	—	9	8	17

Anaesthetics:

General Anaesthetics administered by Dental Officers	1,809
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Inspections:

(a) First inspection at school. Number of Pupils	9,369
(b) First inspection at clinic. Number of Pupils	3,081
Number of (a) + (b) found to require treatment	8,201
Number of (a) + (b) offered treatment	7,524
(c) Pupils re-inspected at school clinic	171
Number of (c) found to require treatment	81

Sessions:

Sessions devoted to treatment	1,764
Sessions devoted to inspections	58
Sessions devoted to Dental Health Education	55

INFECTIOUS DISEASES IN CHILDREN

The infectious disease with the greatest incidence was measles. There were 1,616 cases in 1966 compared with 1,573 in 1965. The majority of cases occurred between the ages of infancy and seven years, there being very few in older children. The disease is troublesome in that it keeps the children out of school for long periods, but it does not seem to be a very severe type. As yet, vaccination against measles has not been tried in Bolton but might be considered if it became Ministry of Health general policy.

The number of cases of whooping cough rose from a very low figure of 24 in 1965 to 95 in 1966. Our immunisation rate for protection with triple vaccine is too low - only 63 per cent of the under-fives. There is no doubt we shall continue to get cases of whooping cough unless we can get a higher rate of protection in young children. As will be seen from the table below, the majority of cases occur in children under six years. Very few deaths now occur from whooping cough, but in an area which has a high incidence of chest disease in adults it is essential to avoid as much as possible lung damage in the young if we are to have a healthy adult population in future years.

There were no cases of poliomyelitis, although our protection rate for this disease is too low.

The number of cases of dysentery rose from 70 in 1965 to 87 in 1966. There were one or two small outbreaks in the schools and these were brought under control by maintaining a good code of hygiene. Considering the large classes in the primary schools, and the difficulties of toilet and washing accommodation in the older schools, it is a credit to the teaching staff and pupils that these small outbreaks are kept under control.

The number of cases of scarlet fever rose from 155 in 1965 to 231 in 1966. This is a mild infection which mainly affects children under eight years. Provided it does not regain the virulence that this disease had in the early part of the century, we are not too worried by the streptococcal germ.

Incidence of Infection:

The number of cases of infectious diseases each month was as follows:

Disease	Number of Cases												Total
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	
Scarlet Fever	43	27	35	22	29	19	6	9	7	10	13	11	231
Measles	15	29	31	41	32	56	79	235	147	227	220	304	1,416
Whooping Cough	9	3	1	1	4	6	10	16	17	16	7	5	95
Pneumonia	2	2	-	-	-	-	-	-	-	2	1	-	7
Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Paralytic	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Paralytic	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteric Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
(Paratyphoid B)	-	-	-	-	-	-	-	-	-	-	-	-	-
Dysentery	7	5	14	29	7	11	3	3	-	5	2	1	87
Food Poisoning	1	-	-	-	-	3	-	-	2	1	-	-	7
Erysipelas	-	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Encephalitis ..	-	-	-	-	-	-	-	-	-	-	-	-	-

Age at Infection:

The age of the children at infection is shown below :

Disease	Age															Total	
	Un- der 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14		15
Scarlet Fever	1	7	11	26	38	53	29	25	11	7	5	7	2	1	6	2	231
Measles	61	198	232	264	203	279	115	42	9	3	5	1	1	2	—	1	1,416
Whooping Cough . . .	8	13	19	17	11	16	4	—	2	2	2	—	1	—	—	—	95
Pneumonia	2	1	—	2	—	—	1	—	—	—	—	—	—	—	—	1	7
Poliomyelitis																	
Paralytic	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Non-Paralytic . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever																	
(Paratyphoid B) . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	8	14	9	10	11	10	6	5	4	2	2	—	1	3	2	—	87
Food Poisoning	—	—	—	2	—	—	2	—	1	—	—	—	—	—	1	1	7
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningococcal																	
Infection	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Encephalitis . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

REPORT ON PHYSICAL EDUCATION

The year 1966 has included a wide interest in the various branches of physical education in schools. Canoeing, judo and archery are well established and matches between schools have been held in archery. Agreement has been reached with the Bolton Sailing Club for a group of pupils from Smithills School to commence sailing at Belmont in Spring, 1967.

Cross country running has now become established in girls' schools and it is hoped to include the girls in the Annual Championships at Leverhulme Park in the future. The boys had a very successful meeting in the Annual Championships in February.

Swimming has held its usual high standard, three shields being retained by schools who entered for the examination of the Manchester and District Branch of the Royal Life Saving Society, and in the annual competition for the awards offered by the Humane Society of the Hundred of Salford, M. Hornby of the County Grammar School won the special medal awarded to the fastest boy in Manchester and District.

The Annual Demonstrations of gymnastics were held once again at Smithills School, with a very large number of teachers present, and demonstrations of infant dancing and junior gymnastics were held at Deane C. of E. schools in November with a very good attendance.

THE WORK OF THE CHILD GUIDANCE CENTRE

There were two staff changes in 1966. Mrs. P. Bunn, a part-time clinical psychologist, left the authority's service in January, and Miss E. Ramsden, senior remedial advisory teacher, left in August.

The waiting list of children referred for investigation of learning or behaviour problems was further reduced during the year. At the end of 1965 there were 44 outstanding cases from the previous year; at the end of 1966 there were 17 such cases.

The Observation Class, which had to be closed in December, 1965 on the resignation of Miss J. H. Adams, was re-opened when Mrs. F. M. Raseta took up duty as teacher-in-charge in September, 1966. The Observation Class provides valuable facilities for the long term observation of young children.

It proved impossible to recruit a new senior remedial advisory teacher immediately on the resignation of Miss Ramsden but, notwithstanding, the work of the Remedial Teaching Service was maintained.

The greatest problem for the Child Guidance Clinic and School Psychological Service remains the treatment of maladjusted children. When there is such pressure from the waiting list for initial diagnosis, there is little time left for the psychologist to provide adequate treatment of any kind, and the provision of a day unit for this category of child is a matter of urgency. Many maladjusted children are found places in residential schools, but many such children could be dealt with adequately in a day unit.

TABLE 1

Children referred to Child Guidance Clinic

Referred by	No. of Cases
Head Teachers	75
School Medical Officers	29
Remedial Teaching Service	14
Parents	7
Psychiatrists	7
School Welfare Officers	1
Children's Department	5
Chief Education Officer	7
Speech Therapists	1
General Practitioners	2
Miscellaneous	5
TOTAL	153

TABLE 2

Recommendations made about children seen in 1966

Recommendation	No. of Cases
Advice to parents	21
Remedial teaching	23
Group therapy	5
For review	7
Woodside E.S.N. School	18
Referred to Psychiatrist	10
Residential school	1
No action	19
Lostock Open Air School	1
Referred to School Health Service	9
Referred to Probation Officer	1
School transfer	3
Advice to Education Department	6
Observation Class	3
TOTAL	127

TABLE 3

Age distribution of children seen in 1966

Age in Years ..	Under 4	4	5	6	7	8	9	10	11	12	13	14	15	15+
No. of Children	3	2	7	10	14	30	22	13	3	8	7	4	3	1

TABLE 4

I.Q. distribution of children tested in 1966

I.Q.	54 and below	55-69	70-84	85-94	95-104	105-115	116-129	130-144
No. of Child'n	2	12	32	18	10	14	5	2

HANDICAPPED PUPILS

One of the most important duties of the School Health Service is to advise the authority on the ascertainment of handicapped pupils. These are pupils who, because of some physical or mental disability, require special educational treatment if they are to obtain the maximum possible advantage from education. Correct ascertainment and placement is of considerable importance to individual pupils.

As far as possible, children are retained in ordinary schools unless their handicap is so severe that this would not give the child the best possible education.

The examination of children who are ascertained as educationally sub-normal is carried out by medical officers who have attended a prescribed course in this work and have fulfilled regulations laid down in The Medical Examination (Sub-normal Children) Regulations, 1959. At the beginning of the year four full-time medical officers and two part-time medical officers, having fulfilled the requirements of the regulations, were able to undertake this work.

Ascertainment in 1966:

The following children were ascertained as in need of special educational treatment as handicapped pupils during the year:

Blind	..	..	..	..	..	..	..	1
Partially sighted	..	..	..	..	..	..	..	1
Deaf	..	..	..	..	..	..	..	—
Partially hearing	..	..	..	..	..	..	..	7
Educationally sub-normal	..	..	..	..	..	..	..	36
Epileptic	..	..	..	..	..	..	..	1
Maladjusted	..	..	..	..	..	..	..	3
Physically handicapped	7
Pupils suffering from speech defects	92
Delicate	45
<hr/>								
TOTAL	193
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Children in Special Schools:

At the end of the year there were 355 handicapped pupils receiving special educational treatment in special schools. Details are given in the following table.

HANDICAP	SPECIAL SCHOOLS	NO. OF PUPILS	
		BOARDERS	DAY
BLIND	Condovery Hall, Shrewsbury	1	—
	Royal Normal College	1	—
PARTIALLY SIGHTED	St. Vincent's, Liverpool	1	—
	Corporation Park School, Blackburn	—	12
	Fulwood School, Preston	1	—
DEAF	Thomasson Memorial School, Bolton	—	9
	St. John's, Boston Spa	1	—
PARTIALLY HEARING	Thomasson Memorial School, Bolton	2	14
DELICATE	Lostock Open Air School	80	—
PHYSICALLY HANDICAPPED	Birtenshaw Hall School, Bromley Cross	—	15
	Singleton Hall, Blackburn	1	—
	Bleasdale House School, Silverdale	1	—
	Children's Convalescent Home, West Kirby	2	—
	The Thomas Delarue, Tonbridge	1	—
	The Bradstock Lockett, Southport	2	—
	Chailey Heritage Craft School, Sussex	1	—
	Margaret Barclay School, Mobberley	1	—
	Woodside School, Bolton	—	174
EDUCATIONALLY SUB-NORMAL	Crowthorn, Edgworth	1	—
	Thingwall School, Liverpool	2	—
	Eden Grove, Appleby	4	—
	Thornbury House, Bristol	1	—
	Southborough Special School, Kent	1	—
EDUCATIONALLY SUB-NORMAL & MALADJUSTED	St. Philip's, Chessington	1	—
	Besford Court, Worcester	1	—
MALADJUSTED	St. Thomas More's School, Devon	2	—
	Brookside School, Craven Arms	1	—
	Breckenborough, Thirsk	3	—
	Chageley, Thelwall	2	—
	Pitt House School, Torquay	3	—
	Pitt House School, Chudleigh	1	—
	Heanton School, Braunton	1	—
	St. Peter's School, Horbury	1	—
EPILEPTIC	William Henry Smith School, Brighouse	1	—
	William Baker School, Herts.	1	—
	Colthurst House School, Alderley Edge	1	—
	Soss Moss School, Chelford	4	—
SPEECH	Maghull Home, Liverpool	2	—
	Moor House, Oxted	1	—
TOTALS		131	224
TOTAL		355	

Children awaiting placement in Special Schools:

The following pupils were ascertained in need of special educational treatment, but at the end of the year, arrangements for accommodation had not been completed:

Blind	1
Physically Handicapped	—
Educationally Sub-normal	1
Epileptic	1
Maladjusted	5
Speech Defect	—
TOTALS	8

Total number receiving or needing special school accommodation . . . 363

Special Schools in Bolton:

WOODSIDE DAY SPECIAL SCHOOLS FOR EDUCATIONALLY SUB-NORMAL CHILDREN:

The numbers of children on the rolls, and those admitted and discharged were as follows:

WOODSIDE SENIOR SCHOOL:

From the Bolton Area:	BOYS	GIRLS
No. of children on the roll, December, 1966 ..	43	37
No. of children admitted during 1966	7	5
No. of children who left during 1966	14	7

From Outside Areas:

No. of children on the roll, December, 1966 ..	6	3
No. of children admitted during 1966	1	1
No. of children who left during 1966	—	3

WOODSIDE JUNIOR SCHOOL:

From the Bolton Area:

No. of children on the roll, December, 1966 ..	46	48
No. of children admitted during 1966	17	22
No. of children who left during 1966	11	5

From Outside Areas:

No. of children on the roll, December, 1966 ..	2	2
No. of children admitted during 1966	1	1
No. of children who left during 1966	—	—

One of the medical officers who is approved for the purposes of ascertaining educationally sub-normal children attends these schools regularly.

Children leaving Woodside Senior School at the age of 16 years who are thought to require further supervision are reported informally to the local health authority.

THOMASSON MEMORIAL DAY AND RESIDENTIAL SPECIAL SCHOOL FOR DEAF AND PARTIALLY HEARING CHILDREN

The Thomasson Memorial School continues to do good work amongst partially hearing children from the county borough and also from other authorities' areas. There are a number of deaf children from Bolton attending the school. With a few exceptions, the children who lived in Bolton or nearby attended as day scholars; the remainder were resident.

The Consultant Aural Surgeon pays regular visits to the school. A school medical officer also paid regular visits. There is a good link with the Manchester Department of Audiology and Education of the Deaf. A start is soon to be made on parent guidance to help the parents of children suffering from deafness.

The numbers of children were:

From the Bolton Area:		BOYS	GIRLS
No. of children on the roll, December, 1966	..	11	15
No. of children admitted during 1966	.. ..	2	2
No. of children who left during 1966	.. ..	3	1

From Outside Areas:

No. of children on the roll, December, 1966	..	52	25
No. of children admitted during 1966	.. ..	6	1
No. of children who left during 1966	.. ..	5	3

LOSTOCK RESIDENTIAL OPEN AIR SCHOOL FOR DELICATE CHILDREN:

The open air school continued on the same lines as in previous years. During 1966, 122 children in the school were from the Bolton area and 54 from outside areas, principally Lancashire County. This compared with 126 children from Bolton and 41 from outside areas in 1965.

The school continues to be useful for children suffering from a variety of conditions and, apart from general debility, asthma is the principal single entity concerned.

A school medical officer visits the school each week, and the children are cared for by a local general practitioner when they are ill.

The following table gives details of the number of children in attendance, admitted and discharged during the year.

From the Bolton Area:		BOYS	GIRLS
No. of children on the roll, December, 1966	..	47	33
No. of children admitted during 1966	.. ..	28	18
No. of children discharged during 1966	.. ..	22	20

From Outside Areas:

No. of children on the roll, December, 1966	..	24	8
No. of children admitted during 1966	.. ..	18	6
No. of children who left during 1966	.. ..	14	8

An analysis of the medical conditions of the children who were in residence during the year is given below :

MEDICAL CONDITION	NO. OF CHILDREN	
	BOLTON	OUTSIDE AREAS
Asthma	25	32
Bronchitis	19	6
Bronchiectasis	3	1
Poor nutritional status	6	6
General debility	61	1
Other conditions	8	8
TOTALS	122	54

Children in other Special Schools:

A number of Bolton children who are handicapped and who cannot be suitably educated in the special schools provided in Bolton attend residential schools in other parts of the country. These children are examined by the authority's medical officers during the school holidays when they return to Bolton so that progress can be assessed, and if there is any change in the child's disability an appropriate recommendation can be made.

Children suffering from Cerebral Palsy:

As far as possible, spastic children whose physical disability is slight and whose intelligence level is adequate are encouraged to attend an ordinary school. The majority of spastic children from Bolton whose physical disability makes them unfit for ordinary school attend Birtenshaw Hall Special School for Spastic Children. The admission and discharge of these children is the responsibility of the Medical Advisory Panel, which meets from time to time to consider applications.

Altogether, there were thirty-six children known to the School Health Service to be suffering from cerebral palsy. The situation at the end of the year was as follows:

	BOYS	GIRLS
Attending Birtenshaw Hall Special School	7	8
Attending special school for partially sighted children	1	—
Attending special school for educationally sub-normal children	—	1
Attending special school for delicate children	1	—
Attending residential grammar school	—	1
Attending grammar school	—	1
Attending ordinary schools	10	4
Not at school - pre-school children	2	—
TOTALS	21	15

Children unable to attend school because of Physical Disabilities:

The service of home teachers was needed for 38 children. The conditions necessitating this service were as follows:

	BOYS	GIRLS
Rheumatic disease	2	3
Asthma	—	2
Congenital abnormalities	1	1
Congenital heart lesion	1	—
Epilepsy	1	1
Perthe's disease	3	1
Educational sub-normality	—	1
Hydrocephalus and blind	—	1
Fractured limbs	5	1
Osteomyelitis	2	—
Muscular dystrophy	2	—
Spastic paraplegia	—	1
Ulcerative colitis	—	1
Other conditions	5	3
TOTALS	<u>22</u>	<u>16</u>

Twelve boys and nine girls who had suffered from the conditions mentioned below were taken off the peripatetic teachers' list.

RESUMED ATTENDANCE AT ORDINARY SCHOOL:	BOYS	GIRLS
Rheumatic diseases	2	2
Fractured limbs	3	—
Perthe's disease	1	—
Other conditions	3	2

RESUMED ATTENDANCE AT SPECIAL SCHOOL:		
Spastic paraplegia	—	1

ADMITTED TO SPECIAL SCHOOL:		
Congenital abnormalities	1	—
Hydrocephalus and blind	—	1
Educational sub-normality	—	1
Muscular dystrophy	1	—

OVER SCHOOL AGE:		
Congenital abnormalities	—	1
Ulcerative colitis	—	1

LEFT BOLTON:		
School phobia	1	—
TOTALS	<u>12</u>	<u>9</u>

Co-operation with the Youth Employment Service:

Handicapped pupils may encounter difficulties in obtaining or keeping employment after they leave school and to assist the Youth Employment Officers in placing these children school medical officers provide advice on Forms Y.9 or Y.10 which are sent to the Youth Employment Officer.

FORM Y.9

This form was completed in respect of sixty-three children and was used for children who had relatively minor defects and who were not likely to need registration under the Disabled Persons (Employment) Act, 1944. The conditions for which the form was used are given in the following table:

								BOYS	GIRLS
Defective colour vision	..	..	..	..	..	..	..	40	1
Defective hearing	..	..	..	..	..	..	..	1	4
Epilepsy	..	..	..	..	..	..	..	1	1
Heart condition	..	..	..	..	..	..	..	—	1
Respiratory conditions	..	..	..	..	..	..	..	6	—
Deformities	..	..	..	..	..	..	..	2	—
Other conditions	..	..	..	..	..	..	..	3	3
								—	—
TOTALS	..	..						53	10
								—	—

FORM Y.10

This form is used where children are sufficiently severely handicapped to make a registration under the Disabled Persons (Employment) Act, 1944, a possibility. In 1966 this form was issued in respect of four children, compared with six in 1965. One child was attending a day special school and three were attending residential schools.

This form is not completed unless the parent is willing to sign a declaration stating that the nature of the disability may be revealed to the Youth Employment Officer. Generally speaking, it is to the advantage of the child that the handicap should be declared at this stage as failure to do so may lead to unsuitable employment and, eventually, to unemployment.

Leavers from—	Form Y.9 completed for—			Form Y.10 completed for—		
	Boys	Girls	Total	Boys	Girls	Total
Secondary Modern Schools ..	39	9	48	—	—	—
Art School	—	—	—	—	—	—
Technical Schools	6	—	6	—	—	—
Grammar Schools	5	—	5	—	—	—
Special Schools	3	1	4	1	—	1
Residential Schools	—	—	—	3	—	3
Out of School	—	—	—	—	—	—
TOTALS	53	10	63	4	—	4

Speech Therapy:

Mrs. H. E. Thomas, Miss K. D. Holden and Mrs. B. P. Pannell, the Speech Therapists, report:

"Throughout the year the speech therapy service was used to capacity for the diagnosis and treatment of speech difficulties. Children were referred by school medical officers, head teachers, consultants and general practitioners.

There were staff changes during the year. Mrs. B. P. Pannell resigned her appointment early in the year and was not replaced until August, when Miss K. D. Holden took up duty. During the period when there was only one speech therapist at the clinic there was a marked rise in the number of children on the waiting list.

Each speech therapist spent one session a week at the Woodside Junior School where the work was found to be challenging but rewarding. During the latter part of the year one session a week was also provided for the Thomasson Memorial Special School to cater for children suffering hearing loss associated with cleft palate or cerebral palsy. The speech training unit and tape-recorder proved invaluable in these treatments.

Attendances at the clinic were fairly good although several children consistently failed to keep appointments made for them. In those cases where the intensive efforts of the staff had failed to secure an improvement, the names of the children concerned were added to the list of children under periodical review. Diagnostic and advisory sessions were carried out at the request of the Principal School Medical Officer, head teachers, parents and general practitioners. Many of these sessions involved children already on the waiting list whose parents were anxious to receive immediate help and advice. In some of these cases, where the full co-operation of parents was secured, children no longer required therapy when their cases were reviewed later in the year.

Throughout the year, students from the School of Speech Therapy of the Elizabeth Gaskell College, Manchester, attended regularly to observe treatment sessions and the everyday running of the clinic.

Dr. J. H. Swindell, for whose valuable help we are grateful, attended the clinic for one session each month throughout the year".

Number of children attending weekly	..	..	..	..	..	..	78
Number of children on supervision	..	..	..	..	..	..	48
Number of children interviewed during the year	....	..	..	..	..	..	65
Number of new cases admitted	..	..	..	..	..	..	42
Number of children discharged	..	..	..	..	..	..	98*
Number of children on present waiting list	..	..	..	..	..	..	98
Number of children referred to Child Guidance Clinic	..	..	..	..	..	..	1
Number of children referred to consultants	..	..	..	..	..	..	9

*Many of these had previously been on the supervision list during 1965 and when reviewed in 1966 no longer required therapy.

EXAMINATIONS UNDER SECTIONS 34 AND 57 OF THE EDUCATION ACT, 1944

Approved medical officers of the authority carried out examinations under the above sections of the Education Act, 1944 of children who were not making satisfactory progress at school. In 36 cases it was recommended that the children be ascertained as educationally sub-normal and that special educational treatment should be provided. One child was found to be unsuitable for education at school.

ADDITIONAL REPORTS

Physiotherapy:

ULTRA-VIOLET LIGHT TREATMENT:

Ultra-violet light treatment was continued at the Health Department throughout the year. The number of children attending in 1966 was 230, compared with 90 in 1965.

The conditions for which medical officers recommended children for treatment are shown in the following table:

Asthma	..	..	..	..	..	..	..	5
Nasal catarrh	..	..	..	..	..	..	..	30
Frequent colds	..	..	..	..	..	..	..	53
Recurrent bronchitis	..	..	..	..	..	..	..	30
General debility	..	..	..	..	..	..	..	21
Frequent coughs	..	..	..	..	..	..	..	6
General conditions	..	..	..	..	..	..	..	85
TOTAL								<hr/> 230 <hr/>

The treatment was given by a qualified physiotherapist.

Breathing Exercises:

The physiotherapist in the Health Department undertook the treatment of five boys and four girls recommended by school medical officers.

She attended twice a week at Lostock Open Air School to give ultra-violet light treatment, and also instructed the children in breathing exercises and arranged the postural drainage and percussion treatment of the children with bronchiectasis.

Thirty-five children - 23 boys and 12 girls - were recommended by the school medical officers for physiotherapy for the following conditions:

	BOYS	GIRLS
Thoracic kyphosis	2	-
Flat feet	7	2
Posture	-	3
Intoeing	2	1
Postural drainage (Children from Lostock Open Air School)	12	6
TOTALS	<hr/> 23 <hr/>	<hr/> 12 <hr/>

Mortality in School Children:

Seven children of school age, two boys and five girls, died during the year. All the deaths were due to natural causes.

Health Education:

During the year health education continued within the Bolton schools but it received new impetus with the full-time appointment of a male health visiting officer to organise the health education services of the town and to co-ordinate the work of the health visitors and school nurses who are attached to junior and senior schools and who are responsible for much of this instruction in healthy living. He has made good contact with many of the head teachers and teaching staff in the primary and secondary schools and has done much to co-ordinate and expand their work in this most important educational service.

Smoking and Addiction:

During the year two conferences were held with head teachers. Several of those who attended who were confirmed smokers were still not convinced of the effects of this habit on so many aspects of health. There were, however, other teachers who attended who accepted the fact that the teacher, like the doctor and nurse and health education officer who advise young people on matters of health, had the responsibility to give a lead and try to stop smoking. However, one accepts that this is very difficult for the person who is addicted to tobacco, but when we are now beset with the more serious problem of drug addiction it is important to tackle the total addictions of society.

In response to requests from some of the schools we have assisted with talks, films and discussions about anti-smoking, and it is not for want of trying, on our part, if the young people persist in commencing this bad habit at an early age. It is gratifying to note that many of the school leavers, particularly girls, do not smoke.

Preparation for Family Life:

An attempt has been made by the health education officer to introduce a greater breadth into the subject of sex education, and by films, discussions, and in some cases seminars, to point out to young people how they can take an active interest in preserving their future health and subsequent happy life. These discussions with young people have ranged far and wide. The physical aspects of reproduction were discussed. Morality was considered in all facets, bearing in mind that promiscuity causes venereal disease, which is still a problem in a small number of teenagers. The need for responsibility in the birth of children, in the preparation for marriage, and the planning of families was emphasised, in an endeavour to ensure healthy living of the next generation. It is nothing short of remarkable, in a country that prides itself on the importance of family life, how little education is given in these matters to young people.

The speakers in the schools have often remarked on the number of girls who have not been instructed about menstruation, and with this occurring in many cases at the age of nine years, it is proving necessary for this teaching to begin in the primary schools.

It is a further matter of concern that many boys and girls are unable to approach their parents on problems relating to reproduction, and it is very clear that it is only by a proper health education programme in the schools that many young people will have some of their questions answered. On the occasions when we have shown films to parents, it is interesting to note how grateful they have been to discuss these matters, and it is, therefore, obvious that health education in the schools should also include parent groups.

The aim of a health education service should be to offer advice on health to parents and pupils, and health should be considered in its broadest sense as a state of mental, physical and social well-being and not just an absence of disease. Young people should know the common causes of illness, the common causes of death, for it is their responsibility to preserve their life if they are to give the best service to the community.

**THE CARE OF CHILDREN ATTENDING NURSERY SCHOOLS,
NURSERY CLASSES AND SPECIAL SCHOOLS**

Nursery Schools:

School medical officers visited nursery schools and classes throughout the year and the school nurse made monthly visits to the nursery schools.

The following are the relevant statistics:

KAY STREET NURSERY SCHOOL:

No. of children on the roll, December, 1966	..	89
No. of children admitted during 1966	.. ..	61
No. of children transferred to primary schools	..	45
No. of children removed by parents or left the district	.. .. .	18

PIKES LANE NURSERY SCHOOL:

No. of children on the roll, December, 1966	..	96
No. of children admitted during 1966	.. ..	71
No. of children transferred to primary schools	..	60
No. of children removed by parents	.. .. .	2

Nursery Classes:

Medical examinations of new admissions were carried out at the 26 nursery classes.

Special Schools:

Monthly visits were paid by school medical officers to Woodside School, and weekly visits to Lostock Open Air School. The Consultant Aural Surgeon visits Thomasson Memorial Special School periodically throughout the year.

Results of Periodic Medical Inspection at Special Schools:

Defect or Disease	Special Schools			
	WOODSIDE (E.S.N.)		THOMASSON MEMORIAL (Deaf & Partially Hearing)	
	Requiring treatment	Requiring observation	Requiring treatment	Requiring observation
SKIN	10	1	-	-
EYES:				
Defective vision	39	20	1	1
Squint	17	1	-	-
Other	1	-	-	-
EARS:				
Defective hearing	5	15	1	10
Otitis media	-	2	1	1
Other	2	1	-	-
NOSE AND THROAT:				
Nasal catarrh	-	11	-	-
Tonsil and adenoid abnormalities ..	-	18	-	1
SPEECH ABNORMALITIES	5	12	-	7
LYMPHATIC GLANDS	-	7	-	-
HEART	-	4	-	1
LUNGS	3	3	-	-
DEVELOPMENTAL:				
Hernia	-	1	-	-
Other	5	8	-	1
ORTHOPAEDIC:				
Posture	-	7	-	-
Flat Feet	2	1	-	-
Other	2	2	-	-
NERVOUS SYSTEM:				
Epilepsy	5	-	-	-
Other	-	2	-	-
PSYCHOLOGICAL:				
Development	-	166	-	-
Stability	1	19	-	-
OTHER DEFECTS OR DISEASES	3	5	-	-
TOTALS	100	306	3	22

EMPLOYMENT OF CHILDREN

Four hundred and thirty-eight children were examined for employment outside school hours, including three children who applied for Juvenile Performers' Licences under the Employment of Children in Entertainment Rules. The type of employment was as follows:

	No. OF CHILDREN
Newspaper delivery	415
Shop or Store Assistants	13
Grocers' Assistants	7
Entertainments	3
TOTAL	438

